

# Sony Cyber-shot DSC F717 Camera Review



The 5Mpixel Sony Cyber-shot F707 camera with a 5x zoom is now making way a new model named F717. But no marked changes were brought into the successor, and fans of the Sony's camcorder style can choose any. Main technical characteristics of both photo cameras are compared in the following table.

Sony Cyber-shot DSC F717
matrix
2/3" 14 bit, 5.24 Mp, 2560*1920 frame (4.91 Mp)
iso eqv.
100, 200, 400, 800
100, 200, 400
lens
Carl Zeiss Vario Sonnar f/d 2-2.4; f = 9.7-48.5 mm (eqv. 38-190 mm), 58 mm
filter
file
TIFF, JPEG (EXIF2.2), MPEG max. HQX 320*240 16 fps unlimited
TIFF, JPEG (EXIF1.1), MPEG max. HQ 320*240 16 fps up to 15 s
focusing
passive (contrast), laser backlight, 5 selective points
passive (contrast), laser backlight, 3 points
exposure metering
Multi-Pattern (49 segment), Center-Weighted, and Spot
exposures
30 s - 1/1000 s, in auto and aperture priority 1/2000 s, 46 steps
30 s - 1/1000 s
Automatic forced noise elimination
from 1/25 s
from 2 s

interface  
USB2.0  
external flash  
hot shoe, Sony connector  
Sony connector  
flash  
iso 100 eqv. 0.5 - 5 m  
display  
1.8 " TFT 123000  
weight  
667 g

On the photo hardware level, lens/matrix, there are no changes. But we've got higher sensitivity of ISO800, a short exposure of 1/2000 s at a more or less "closed" aperture in the auto modes, faster USB, a white balance for the incandescent lamp, and "fluorescent" instead of "indoors", Multi Burst mode, unlimited MPEG HQX instead of a 15sec one. But the most useful features are histograms in shooting and viewing modes, a hot shoe and 5 selective focusing points. The zoom and manual focusing control system is changed. The two-position zoom switch is now horizontal, and the focusing ring can control zoom in the auto focus mode which photographers are accustomed to. There is still a 2x zoom - the faster you turn the switch, the faster the zooming.



The buttons are the same, though placed differently. The F707 is on the left, and the F717 is on the right. The bigger ribs of the focusing ring of the F707 make the grasp easier, and the camera's color attracts less attention of strangers. With the F717 you can use an ordinary flash instead of a special one, like for the F707, - HVL-F1000 with a sync cord for the Sony ACC connector which also supports a remote control. The built-in flash can pop up automatically. In all modes except the auto one (priorities, manual exposure) the built-in flash works at exposure values allowing for daylight illumination (they are long, and shots will most likely be blurred if a tripod or back lighting are not used).



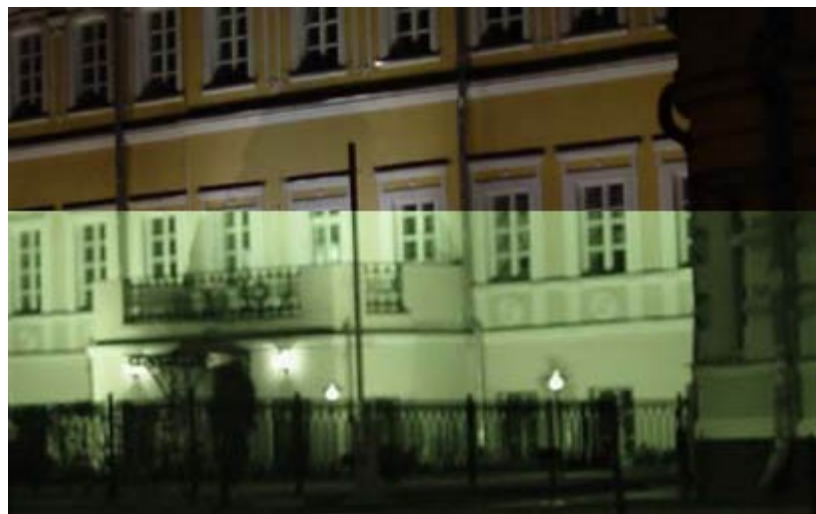
The battery pack uses the infoLITHIUM battery Sony Stamina NP-FM50 7.2 V, 8.5 W which must suffice for 2500 shots and 2.5 hours of operation until next charging (according to SONY for the F707). On the back we have an optical viewfinder and a display, display mode buttons, a menu button, a viewfinder/display switch, a multiselector for menu navigation and flash modes, shot viewing mode, timer and macromode. Under the viewfinder is a door hiding an external power connector and a video/audio output.



Next to the release button is an exposure correction button (a small one) and a settings selector (exposure, aperture, exposure correction which is selected by pressing). Shooting modes: manual exposure, shutter speed, aperture priority, flexible program, green zone, scene (twilight, twilight portrait, landscape and portrait), video. Additional positions of the disc selector: camera's settings and viewing mode. Next to the mode switch and the power arm there are a microphone and a speaker. Below, the casing incorporates a NightFraming-NightShot lever. In the nightframing and nightshot modes the camera uses infrared shooting (an IR filter is mechanically removed from the optical system). In the former mode after framing in the IR range the IR filter returns to its position when the release button is pressed, the flash turns on and the camera makes a shot, and in the latter mode the camera shoots in the IR mode. The nightframing is meant for only one possible shot - after concealed aiming the flash clicks giving light while popping up (if it isn't raised in advance).



The lens has two infrared illuminator LEDs (above) and a laser illuminator of the holographic "assistant" of passive focusing (on the side). Modulated light of the laser backlight creates an accurate picture on the target for the auto focus (the recommended distance from the object is 4.5 m).



*The same shot in the normal and nightshot modes.*



*The body of the camera is just a small part of the lens, that is why the tripod's socket and the USB connector are located on the latter. The tripod connector has a locking hole beside a threaded one which is important for such a weighty and lengthy camera. The body can rotate around its horizontal axis (at the right angle to the lens's axis) by 77 degrees upward and 36 downward, which lets you raise the camera above or lower it. A round connector behind the flash is an ACC connector of the remote control and of the flash. As now we have a hot shoe the flash and remote control can be used simultaneously.*

## **Menu**





*Manual focusing (0.34 m), histogram, shutter priority F:8.0, 1 s exposure with enabled noise elimination, 2560 Fine file, exposure correction 0*



*Viewing. Multi burst, slideshow, magnification, DPOF (Attach DPOF printing information to image), deletion, protection from accidental erasure. A shot can be rotated or resized and video can be divided into two clips.*



*One of the scenes is night shooting.*



*Shot rotation.*



*Possible frame sizes.*



*Movie modes: MPEG movie, GIF animation, and series of shots. Other settings: adjustable data/time, digital zoom, redeye reduction, hologram autofocus mode, add-on lens.*



*Photo shooting formats: TIFF, sound, shot for E-Mail, exposure bracketing, burst, normal. In the BURST3 mode you can get 3 shots at a little more than 1 sec.*



*Second page of settings: image enlargement in manual focusing mode, bracket step, hot shoe, direction of rotation of the zooming ring. Next menu page (memory card shown): formatting, folder to store shots in (creation, editing).*



*Shooting effects.*



*Adjustment of display and sound.*



*Flash power adjustment.*

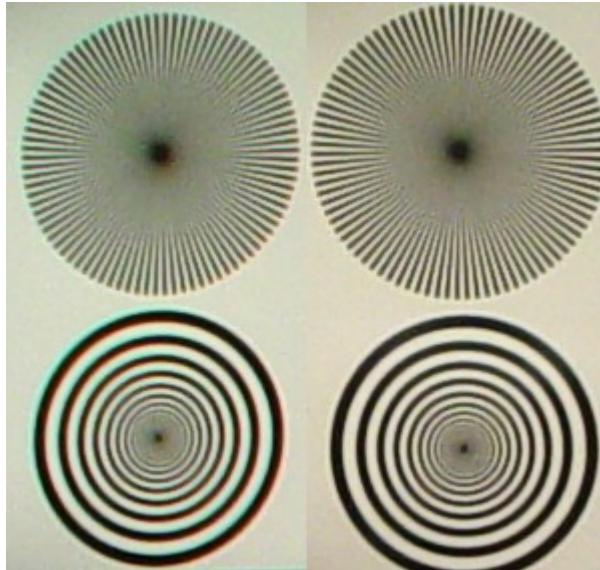




*System settings: file number, USB (normal and PTP), video out (NTSC/PAL), language, clock/date.*

## Tests

### ***Shooting of the resolution chart in transient light.***



*Edge and center of the TIFF frame for  $f = 9.7$  mm,  $f/d = 8$ . Fragment 1:1. Exposure 1/13 s, noise elimination forcedly enabled. Coordinates of the center of the radial resolution chart for the frame edge:  $x = 116$   $y = 142$ , for the frame center:  $x = 1285$   $y = 820$ . On the edge there are geometrical distortion and chromatic aberration. **Noise.** Automatic noise reduction works forcedly starting from 1/25 s. Fragments 1:1 of JPEG FINE files.*



*ISO 100, exposure 1 s.*



*ISO 800, exposure 1/8 s.*



*ISO 100, exposure 1/8 s. Nightshot mode. The black coloring matter is almost unnoticeable in IR light.*



*Miniature,  $f = 9.7$  mm, 1/8 s, 1.7 MB JPEG shot [here](#)*

In the macro mode at  $f = 9.8$  mm it's possible to focus on an object with 5.2 cm along the long side of the frame, at  $f = 48.5$  mm - 16 cm.



*Miniature,  $f = 48.5$  mm, 1/30 s, 2 MB JPEG shot [here](#)*

In the BURST 3 mode a series of 3 JPEG FINE shots of the maximum size can be taken at a bit more than 1 sec, the next series is in 12 s. In the normal shooting mode (auto focus, auto exposure, exposure 1/125 s) such files can be shot in at least 2 sec.

## **Software**

The camera comes with software for delivering data into the computer (USB driver, Image Transfer) and for processing data on PC (Pixelia Imagemixer). With the Imagemixer you can look through digital shots and video/audio clips, edit them a little, create digital multimedia albums, printable templates with frames and text, shoot video and make photos on PC via USB.





## Focusing errors

On the [Sony's](#) site you can find information that the below listed cameras can have focusing errors in certain situations (focusing mode with hologram backlight Hologram AF, the lens is set into the long-focus position, an object is located too close to the camera and scarcely illuminated):

1320001-1320404  
 1320407  
 1320409-1320422  
 1320424-1320425  
 1320427-1320430  
 1320432  
 1320434-1320440  
 1320442-1320463  
 1320465-1320468  
 1320470-1334250  
 1334801-1334900  
 1335251-1337694  
 1337883-1338610  
 1339051-1339550

In this case you should go to the service center to have your Hologram AF parameters corrected.

## Sony DSC-F717 vs. DSC-F707

	 <b>Sony DSC-F717</b>	 <b>Sony DSC-F707</b>
Colour	Silver body	Metallic grey body
ISO sensitivity	Auto & ISO 100, 200, 400, 800	Auto & ISO 100, 200, 400
Max shutter speed	<ul style="list-style-type: none"> <li>• Program AE: 1/2000 sec</li> <li>• Other modes: 1/1000 sec</li> </ul>	<ul style="list-style-type: none"> <li>• All modes: 1/1000 sec</li> </ul>
AF points	<ul style="list-style-type: none"> <li>• Wide (3 point)</li> <li>• 5 selectable</li> </ul>	<ul style="list-style-type: none"> <li>• Wide (3 point)</li> </ul>
AF point highlight	Yes	No
Histogram display	<ul style="list-style-type: none"> <li>• Record live view</li> <li>• Play mode</li> </ul>	None
Exposure modes	<ul style="list-style-type: none"> <li>• Full Auto</li> <li>• Program AE</li> <li>• Aperture Priority</li> <li>• Shutter Priority</li> <li>• Full Manual</li> <li>• Scene</li> </ul>	<ul style="list-style-type: none"> <li>• Program AE</li> <li>• Aperture Priority</li> <li>• Shutter Priority</li> <li>• Full Manual</li> <li>• Scene</li> </ul>
Scene modes	<ul style="list-style-type: none"> <li>• Twilight</li> <li>• Twilight portrait (slow sync flash)</li> <li>• Landscape</li> <li>• Portrait</li> </ul>	<ul style="list-style-type: none"> <li>• Twilight</li> <li>• Landscape</li> <li>• Portrait</li> </ul>
White balance	<ul style="list-style-type: none"> <li>• Auto</li> <li>• Daylight</li> <li>• Cloudy</li> <li>• Fluorescent</li> <li>• Tungsten</li> <li>• Manual preset 'one push'</li> </ul>	<ul style="list-style-type: none"> <li>• Auto</li> <li>• Manual preset 'one push'</li> <li>• Outdoors</li> <li>• Indoors</li> </ul>
Noise reduction	Yes, 1/25 sec or slower	Yes, 2 sec or slower
Noise reduction type	Clear Color & Luminance NR	Clear Color
MPEG clips	MPEG HQX (16 fps unlimited)	MPEG EX (16 fps max 15 secs)
Movie modes	<ul style="list-style-type: none"> <li>• MPEG Movie</li> <li>• Clip Motion</li> <li>• Multi Burst</li> </ul>	<ul style="list-style-type: none"> <li>• MPEG Movie</li> <li>• Clip Motion</li> </ul>
USB connectivity	USB 2.0 (1.2 MB/sec *)	USB 1.1 (0.8 MB/sec)
JPEG	EXIF 2.2 (ExifPrint)	EXIF 1.1
Play mode exp. info	Overlaid on image review	Only on three-thumbnail display
Memory Stick Tool	Yes (folder creation / selection)	No
MS to MS Copy function	No	Yes
Play mode scroll	Yes (Delete / Protect / DPOF)	No
Supplied storage	32 MB Memory Stick	16 MB Memory Stick
Zoom control	<ul style="list-style-type: none"> <li>• Horizontally mounted two speed</li> <li>• Lens ring (switchable)</li> </ul>	<ul style="list-style-type: none"> <li>• Vertically mounted two speed</li> </ul>
Accessory shoe	<ul style="list-style-type: none"> <li>• Hot-shoe</li> </ul>	<ul style="list-style-type: none"> <li>• Cold shoe</li> </ul>
Misc	<ul style="list-style-type: none"> <li>• Improved AF</li> <li>• Shorter shutter LAG</li> <li>• Faster startup time</li> <li>• Improved AWB</li> </ul>	
Weight	659 g (1.45 lb)	667 g (1.5 lb)

### 1/2000 sec

There seems to have been a fair amount of confusion about the advertised maximum shutter speed of 1/2000 sec. So here are the facts. The camera will only use 1/2000 sec in Program AE, Auto exposure or Aperture Priority modes at F5.6 upwards, you can not select 1/2000 sec in Shutter Priority or Manual nor will the camera use 1/2000 sec in Aperture Priority mode (no matter what Aperture). The camera's shutter can only achieve 1/2000 sec at F5.6 (or smaller), this is because the F717 (like many other

digital cameras) uses a combined aperture / shutter iris mechanism, the smaller the aperture the faster the camera can open and close it. This is exactly the same limitation we saw on Canon's G1 and G2 (1/1000 sec only available at F8).

## What's missing?

While I welcome quite a few of the additions here, especially 5-area AF and histogram displays I'm also disappointed that Sony didn't use this new camera as an opportunity to catch up to some of the competition in regards to basic imaging features. While I'm sure the F717 will continue the F707's reputation for excellent image quality we must wonder how a lack of features will affect the F717 when compared to some of the competition. Here's a summary of my gripes:

- No control of colour saturation or tone
- No way to disable the various automatic noise reduction algorithms
- Program AE still crippled with a minimum 1/30 sec shutter speed
- No concept of user sets / settings memories
- No flexible program exposure
- Limited continuous shooting ability

## Review Notes

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If you're new to digital photography you may wish to read the [Digital Photography Glossary](#) before diving into this review (it may help you understand some of the terms used).

Conclusion / Recommendation / Ratings are based on the opinion of the reviewer, you should read the ENTIRE review before coming to your own conclusions.

Images which can be viewed at a larger size have a small magnifying glass icon in the bottom right corner of the image, clicking on the image will display a larger (normally 960 x 720 or smaller if cropped) image in a new window.

To navigate the review simply use the next / previous page buttons, to jump to a particular section either pick the section from the drop down or select it from the navigation bar at the top.

DPRreview calibrate their monitors using Color Vision OptiCal at the (fairly well accepted) PC normal gamma 2.2, this means that on our monitors we can make out the difference between all of the (computer generated) grayscale blocks below. We recommend to make the most of this review you should be able to see the difference (at least) between X,Y and Z and ideally A,B and C.



## Sony DSC-F717 Specifications





Street Price	US: \$1,000 (RRP)
Body Material	Magnesium Alloy
CCD pixels	? 5.24 megapixels
CCD effective output	? 4.92 megapixels
CCD size**	? 2/3"
CCD Colour Filter Array	? G - R - G - B
A/D Converter	14 bits
Max resolution	2560 x 1920
Lower resolutions	<ul style="list-style-type: none"> <li>• 2560 x 1712 (3:2)</li> <li>• 2048 x 1536</li> <li>• 1280 x 960</li> <li>• 640 x 480</li> </ul>
Image ratio w:h	4:3 / 3:2
Image formats	? <ul style="list-style-type: none"> <li>• TIFF</li> <li>• JPEG (EXIF 2.2)</li> </ul>
Quality Levels	<ul style="list-style-type: none"> <li>• Fine</li> <li>• Standard</li> </ul>
Sensitivity equiv.	? <ul style="list-style-type: none"> <li>• Auto (ISO 100 - 320)</li> <li>• ISO 100</li> <li>• ISO 200</li> <li>• ISO 400</li> <li>• ISO 800</li> </ul>
Zoom wide (W)	? 38 mm
Zoom tele (T)	? 190 mm (5x)
Zoom control	<ul style="list-style-type: none"> <li>• Lens ring (can also be used for manual focus)</li> <li>• Dual speed Wide / Tele controller on lens barrel side</li> </ul>
Lens Thread	58 mm
Lens Max Aperture	? F2.0 - F2.4
Digital zoom	? Smooth up to x2.0
Auto Focus	<ul style="list-style-type: none"> <li>• Contrast detection 'Expanded' AF</li> <li>• 5 area selectable</li> <li>• Hologram AF (automatic low light; Laser)</li> </ul>
AF Illumination lamp	? Yes, Hologram AF (Laser)
Manual Focus	? Ring at front of lens barrel
Normal focus range	? 50 cm (19.7 in) - Infinity
Macro focus range	? 2 cm (0.8 in) - 50 cm (19.7 in)
Min shutter	? <ul style="list-style-type: none"> <li>• Program AE: 1/30 sec</li> <li>• Aperture Priority: 8 sec</li> <li>• Manual / Shutter Priority: 30 secs</li> </ul>
Max shutter	? <ul style="list-style-type: none"> <li>• Program AE, Aperture Priority: 1/2000 sec *</li> <li>• Other modes: 1/1000 sec</li> </ul> <p>* In aperture priority from F5.6 upwards</p>
Noise reduction	Yes, for shutter speeds of 1/25 seconds or slower
Noise reduction types	<ul style="list-style-type: none"> <li>• Clear Color</li> <li>• Luminance NR</li> </ul>
Exposure Modes	<ul style="list-style-type: none"> <li>• Auto</li> <li>• Program AE</li> <li>• Aperture Priority</li> <li>• Shutter Priority</li> <li>• Full Manual</li> </ul>

Aperture Priority	<ul style="list-style-type: none"> <li>• Scene mode: Twilight, Twilight Portrait, Landscape, Portrait</li> <li>• Lens @ Wide: F2.0, F2.2, F2.5, F2.8, F3.2, F3.5, F4.0, F4.5, F5.6, F6.3, F7.1, F8</li> <li>• Lens @ Tele: F2.4, F2.5, F2.8, F3.2, F3.5, F4.0, F4.5, F5.6, F6.3, F7.1, F8</li> </ul>
Shutter Priority	<p>30, 25, 20, 15, 13, 10, 8, 7, 5, 4, 3, 2.5, 2, 1.6, 1.3, 1, 1/1.3, 1/1.6, 1/2, 1/2.5, 1/3, 1/4, 1/5, 1/6, 1/8, 1/10, 1/13, 1/15, 1/20, 1/25, 1/30, 1/40, 1/50, 1/60, 1/80, 1/100, 1/125, 1/160, 1/200, 1/250, 1/320, 1/400, 1/500, 1/640, 1/800, 1/1000 sec</p> <p>* Exposures of 1/25 sec or slower are indicated as 'NRx' where x is the shutter speed, noise reduction automatically enabled.</p>
Metering	<p>?</p> <ul style="list-style-type: none"> <li>• Multi-pattern (49 segment)</li> <li>• Center-Weighted Average</li> <li>• Spot</li> </ul>
Exposure adjustment	<p>?</p> <p>-2EV to +2EV in 1/3EV steps</p>
AE Lock	Yes, dedicated button (one shot)
Auto bracketing	<p>?</p> <ul style="list-style-type: none"> <li>• 3 images</li> <li>• 0.3, 0.5 or 1.0 EV steps</li> </ul>
Picture Controls	<ul style="list-style-type: none"> <li>• Sharpness</li> </ul>
Colour Modes	<ul style="list-style-type: none"> <li>• Colour</li> <li>• Sepia</li> </ul>
White Balance	<p>?</p> <ul style="list-style-type: none"> <li>• Auto</li> <li>• Manual preset (custom)</li> <li>• Daylight</li> <li>• Incandescent</li> </ul>
Continuous	<p>?</p> <p>Approx. 2.8 fps for 3 images</p>
Movie clip	<ul style="list-style-type: none"> <li>• MPEG HQX - 320 x 240, 16 fps, no limit, including audio (5 min 54 sec on a 128 MB Memory Stick)</li> <li>• MPEG EX - 320 x 240, 8 fps, no limit, including audio (23 min 39 sec on a 128 MB Memory Stick)</li> <li>• MPEG EX - 160 x 112, 8 fps, no limit, including audio (1 hr 31 min 34 sec on a 128 MB Memory Stick)</li> </ul>
Built-in Flash	Yes, automatic pop-up
Flash Range (approx.)	ISO 100: 0.5 - 5 m (1.6 - 16.4 ft)
Flash modes	<ul style="list-style-type: none"> <li>• Auto</li> <li>• Anti Red-Eye Auto</li> <li>• Flash On</li> <li>• Flash Off</li> <li>• Slow Sync (Twilight Portrait Scene mode)</li> </ul>
Flash compensation	<ul style="list-style-type: none"> <li>• Low</li> <li>• Normal</li> <li>• High</li> </ul>
Flash metering	Pre-flash TTL metering (flash fires twice)
External flash	Yes, Sony synch terminal and hot-shoe
Tripod mount	Yes, metal
Self-timer	Yes, 10 sec delay
Remote control	Optional wired
Time-lapse recording	No
Video out	Yes, selectable NTSC / PAL
Storage media	<p>?</p> <p>Memory Stick</p>
Storage included	32 MB Memory Stick
Viewfinder	<p>?</p> <p>Electronic Viewfinder with dioptre adjustment, 180,000 pixels</p>
LCD	<p>?</p> <p>1.8" TFT 123,000 pixels with anti-reflective coating</p>
Print compliance	DPOF, Print Image Matching
Playback zoom	Yes, up to 5.0x
Operating system	Proprietary
Connectivity	<p>?</p> <p>USB 2.0</p>
Battery	<p>?</p> <p>Yes, supplied Sony InfoLithium NP-FM50 (1200 mAh)</p>
Battery charger	<p>?</p> <p>Yes, supplied AC-L10 AC adapter / charger</p>
Weight (inc. battery)	659 g (1.45 lb)
Dimensions (inc. grip)	120 x 67 x 148 mm (4.7 x 2.6 x 5.8 in)

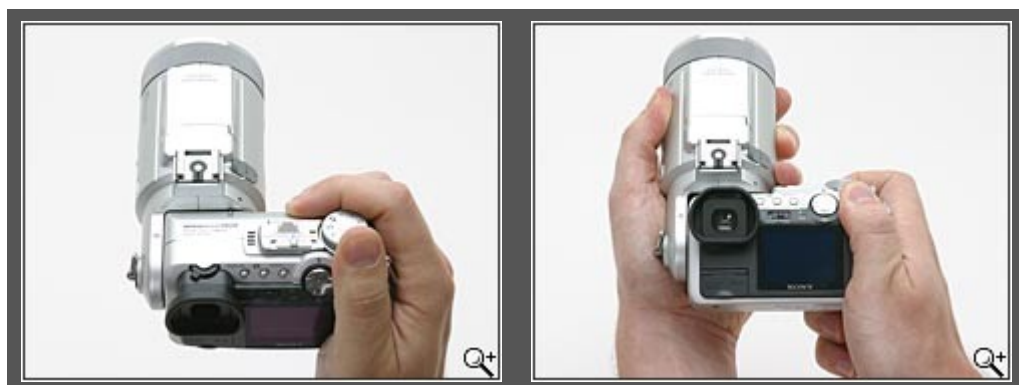
## Design



### Side by side



### In your hand

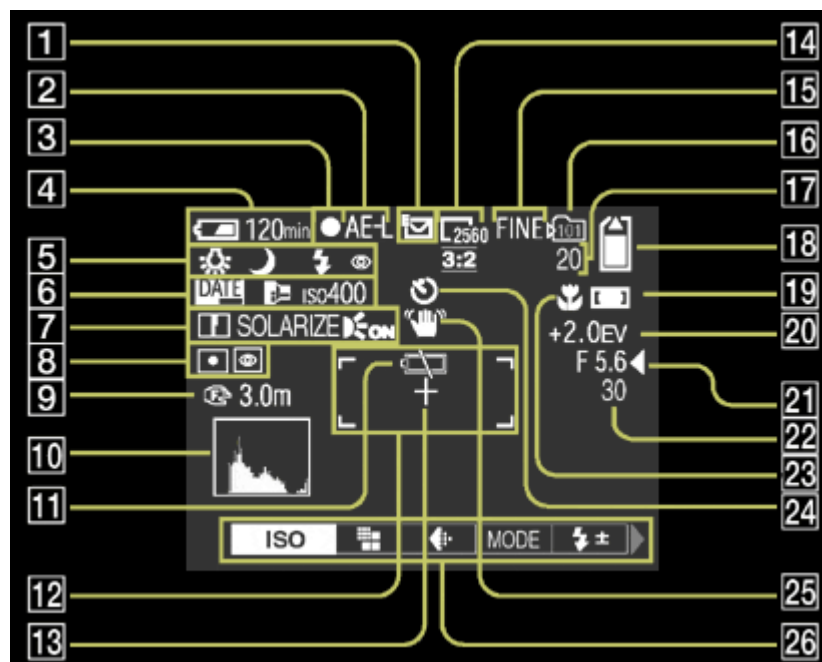



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## LCD Monitor



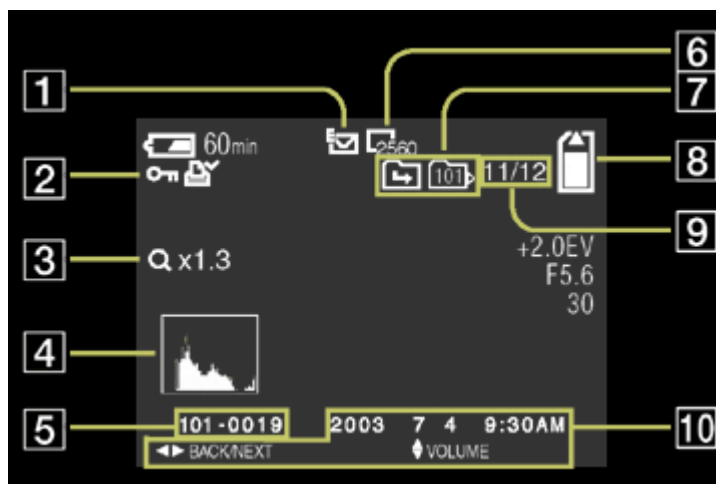
## LCD Display - Record Mode (Still)



- |                      |                              |
|----------------------|------------------------------|
| 1. Recording mode    | 10. Histogram                |
| 2. AE LOCK           | 11. Low battery warning      |
| 3. AE/AF lock        | 12. AF range finder          |
| 4. Battery remaining | 13. Spot metering cross hair |

5. White balance	14. Image size
+ Mode dial	15. Image quality
+ Flash mode	16. Recording folder
+ Red-eye reduction	17. Remaining frames
+ Hot shoe	18. Memory Stick space
6. Date/time	19. Focus range
+ Conversion lens	20. EV level
+ ISO number	21. Aperture value
7. Sharpness	22. Shutter speed
+ Picture effect	23. Macro
+ Hologram AF	24. Self-timer
8. Metering modes	25. Hand shake blur warning
+ NightShot/NightFraming	26. Menu
9. Focus distance	

## LCD Display - Play Mode (Still)



1. Recording mode	6. Image size
2. Protected	7. Change folder
+ Print mark	+ Playback folder
+ Volume	8. Memory Stick space
3. Zoom scaling	9. Image number / count
4. Histogram	10. Recording date
5. File name	

## Electronic Viewfinder



The DSC-F717 has the same excellent 180,000 pixel Electronic Viewfinder we saw on the original F707. After Sony used this display on the F707 we saw it appear on the Fujifilm FinePix S602Z and Nikon's Coolpix 5700. As EVF's go this is one of the best.

The back of the viewfinder has a rubber eye cup and on top you'll find a dioptre adjustment for those who wear corrective glasses. We measured the EVF's frame coverage as 98% (same as the rear LCD).

## Storage / Battery Compartment





## Connections



### Hot Shoe / ACC connector



In a step up from the F707 the F717 now has a hot shoe which supports Sony's HVL-F1000 flash unit with a direct synch connection as well as other third party flash units. The ACC connector can be used to trigger an HVL-F1000 off-camera and is also used for wired remote control RM-DR1 or the remote control included on Sony's VCT-D480RM tripod.

## Pop-up Flash



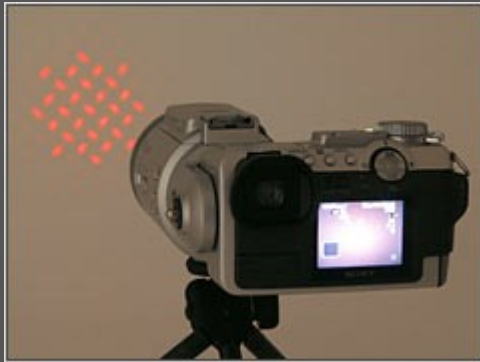
The F707's flash unit is electro-mechanically operated. It will automatically pop-up from the lens barrel either when required (Auto Flash mode) or when selected (Forced Flash mode). I would liked to have seen an option to pop the flash up upon pressing the flash button and disable it by closing the flash (as seen on the Nikon Coolpix 5700). The flash has a rated range of 0.5 - 5 m (1.6 - 16.4 ft).

## Lens



Sony has chosen to keep the excellent 5x optical zoom lens of the F707. This is probably one of the new cameras biggest assets. The super fast F2.0 - F2.4 lens is made from quality glass and coating designed by Carl Zeiss. Its speed (large maximum aperture even at telephoto), silent focus and zoom operation, neutral colour and sharp resolution performance are second to none at this level.

## Hologram AF Assist



The F717 keeps the F707's unique laser pattern 'Hologram AF Assist'. A weave pattern is produced by a small laser mounted beside the lens (see above). This pattern is used to assist the contrast detect AF system to lock AF in low light situations. The pattern appears for approximately one second, in our tests of the F707 we found it worked best on large subjects which are covered by the entire pattern.

## Tripod mount / camera base



Probably one of the best positioned tripod mounts of any digital camera. The F717's tripod mount is located on the base of the lens barrel and is surrounded by four rubber feet. Its location means that you get the ultimate stability (clamping the lens) while still being able to rotate the rear body up or down when the camera is on the tripod.

## Supplied In the Box



Supplied in the box are:

- Sony DSC-F717 Digital Camera
- Battery Pack NP-FM50
- AC Adapter / Charger AC-L10
- Memory Stick MSA-32A (32 MB)
- Lens cap
- Shoulder Strap
- USB Cable
- A/V Cable
- Instruction Manual
- CD-ROM: Sony USB Drivers, MGI PhotoSuite, MGI VideoSuite

## Sony Accessories



**Memory Sticks:**  
MSA-8A/16A/32A/64A/128A

**USB Memory Stick Reader:**  
MSAC-US1

**PC Card Adapter for Memory Stick:**  
MSAC-PC2



**Floppy Disk Adapter for Memory Stick:**  
MSAC-FD1B/2M



**Extra Batteries:**  
NP-FM50



**Dual external batt charger:**  
AC-SQ950

**Also available:**

- Lens filter set - Polarized - VF-58CPK S
- Lens filter set - ND filter - VF-58M
- Lens filter set - Star cross filter - VF-58SC

\* Availability of accessories may vary by region.

## Top of camera controls



Not much has changed on the top of the F717, the only noticeable differences are the MPEG MOVIE HQX label and the addition of the Program AE mode which switches the function of the old icon to a full Auto exposure mode. This is useful when handing the camera to someone else to take a quick shot, all settings are returned to default and the menu is more basic.

The power switch is mounted around the camera mode dial, just in the right position for a flick from your thumb. Beside the mode dial is the camera's microphone, used to record audio in movie mode. Just below the microphone is the NightFraming / NightShot switch.

Toward the front of the camera is the shutter release button, tilted slightly forwards and it is a soft half-press, click full-press type. Next to this is the exposure compensation button, directly in front of that is the camera's jog-dial which is used to set exposure compensation, aperture / shutter speed in manual modes and scroll through images in playback mode. I personally found the jog-dial location to be a bit awkward, it would have been better to the left of the shutter release, on the rear of the camera or the front of the hand grip.

## Exposure / Camera Mode Dial




### Movie Mode

The F717 features the MPEG HQX movie mode which allows you to record movie clips which are only limited by the amount of space on your Memory Stick.

	<p>MPEG HQX is recorded at 320 x 240, 16 fps, 10 Khz audio. Optionally you can also choose from MPEG EX (320 x 240 or 160 x 112) which records at only 8 fps.</p> <p><b>Playback</b></p> <p> Enters playback mode, this displays the last image/movie recorded. Cursor arrows or jog-wheel can be used to scroll through images (other functions described later).</p> <p><b>Auto Exposure ('Auto Adjustment' mode)</b></p> <p> Automatic exposure mode, camera meters the scene and selects best combination of aperture and shutter speed and ISO sensitivity to properly expose the image. You can not change ISO, white balance, exposure compensation etc.</p> <p><b>Program Auto Exposure</b></p> <p> Automatic exposure mode, camera meters the scene and selects best combination of aperture and shutter speed (and ISO if set to Auto) to properly expose the image. Additionally you can compensate the exposure by either +/- 2.0EV in 0.3 EV steps. The F717's program AE mode is not flexible (ability to select equal exposures by rolling the command dial).</p> <p><b>Shutter Priority Auto Exposure</b></p> <p> In this mode you select the shutter speed and the camera will attempt to select the best aperture for a proper exposure. Shutter speed is displayed on the LCD, click once then roll the jog-dial to select different shutter speeds. As you change the shutter speed the cameras exposure system recalculates and displays the appropriate aperture, there is no warning if the exposure is outside the camera's exposure range. The LCD view changes to reflect the look of the final image at this exposure. Available shutter speeds:</p> <p>30, 25, 20, 15, 13, 10, 8, 7, 5, 4, 3, 2.5, 2, 1.6, 1.3, 1, 1/1.3, 1/1.6, 1/2, 1/2.5, 1/3, 1/4, 1/5, 1/6, 1/8, 1/10, 1/13, 1/15, 1/20, 1/25, 1/30, 1/40, 1/50, 1/60, 1/80, 1/100, 1/125, 1/160, 1/200, 1/250, 1/320, 1/400, 1/500, 1/640, 1/800, 1/1000 s</p> <p>* Exposures of 1/25 sec or slower are indicated as 'NRx' where x is the shutter speed, noise reduction automatically enabled.</p> <p><b>Aperture Priority Auto Exposure</b></p> <p> In this mode you select the aperture and the camera will attempt to select the best shutter speed for a proper exposure. Aperture is displayed on the LCD, click once then roll the jog-dial to select different apertures. As you change the aperture the cameras exposure system recalculates and displays the appropriate shutter speed, there is no warning if the exposure is outside the camera's exposure range. The LCD view changes to reflect the look of the final image at this exposure. Available apertures:</p> <p>Wide: F2.0, F2.2, F2.5, F2.8, F3.2, F3.5, F4.0, F4.5, F5.0, F5.6, F6.3, F7.1, F8.0 Tele: F2.4, F2.5, F2.8, F3.2, F3.5, F4.0, F4.5, F5.0, F5.6, F6.3, F7.1, F8.0</p> <p><b>Full Manual Exposure</b></p> <p> In this mode you select the aperture and the shutter speed from any combination of the above. Use the jog-dial to switch between shutter speed or aperture, click then roll it again to change the value. The LCD view changes to reflect the look of the final image at this exposure. The exposure compensation readout now displays the difference between the selected exposure and the metered exposure up to a maximum of +/-2.0 EV.</p> <p><b>Special Scene Exposure</b></p> <p> "Scene Exposure mode" is set through the SETUP menu, you can choose from three exposure modes which preset certain camera settings to ensure the best possible exposure in those scene modes:</p> <ul style="list-style-type: none"> <li>• Twilight (low light shots, long exposures)</li> <li>• Twilight Portrait (low light shots, long exposures, slow sync flash)</li> <li>• Landscape (focus locked to infinity, small apertures, flash cancel)</li> <li>• Portrait (large apertures)</li> </ul> <p><b>Setup</b></p> <p> Enters camera setup mode (described in more detail later).</p>
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### Buttons

<p> <b>Exposure Compensation</b></p> <p>Enables exposure compensation, click the jog-dial then roll between compensations of : (+/- 2.0 EV in 0.3 EV steps)</p> <p>-2.0, -1.7, -1.3, -1.0, -0.7, -0.3, 0, 0.3, 0.7, 1.0, 1.3, 1.7, 2.0 EV</p>	<p><b>NIGHT</b> <b>NightFraming</b></p>
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### NightFraming / NightShot switch



## FRAMING



## NIGHT SHOT

NightFraming can only be used in Auto exposure mode, it allows you to use the light sensitive NightShot mode to frame the subject before taking the final shot in normal mode (flash exposure). Exposure sequence:

- Switch to NightFraming, a small click is heard as the IR filter is removed from the CCD, IR lights on the front of the lens come on and screen turns 'NightShot Green'.
- Use this 'NightShot' view to frame the subject.
- Half-press shutter release and IR filter is replaced screen returns to full colour, (if enabled) Hologram AF (laser focus) will lock focus on subject, IR filter is again removed and screen returns to 'NightShot' view, flash pops up if not already up.
- Fully depress shutter release, IR filter is replaced, flash fires and full colour image is taken.
- Screen returns to 'NightShot' type view.

### Normal shooting

In this mode the camera operates as a normal digital camera, the Infrared filter remains in front of the CCD at all times. However, Hologram AF (laser) may be used in low light circumstances if set to Auto in the Setup menu. (Note that the label for this mode has changed from the word OFF on pre-production cameras to the green dot - this avoids confusing this switch for the power switch).

### NightShot

NightShot can only be used in Auto exposure mode. Exposure sequence:

- Switch to NightShot, a small click is heard as the IR filter is removed from the CCD, IR lights on the front of the lens come on and screen turns 'NightShot Green'.
- Frame subject.
- Half-press shutter release and AE and AF lock (Hologram AF is NOT used in this mode).
- Fully depress shutter release and shot is taken in 'NightShot' mode (green sepia B&W).
- The flash can not be enabled in this mode, the slowest possible exposure is 1/8 sec.

## Rear of camera controls






Nothing has changed at the 'back' of the camera, control layout is logical enough with plenty of space on the right for the pad of your hand and thumb to fit into the moulded 'cup'. Along the top are controls for the display as well as the multifunction 4-way controller.

## Buttons / Controls

### MENU

#### Record Menu

Enters record menu (detailed later).

 <b>DISPL</b> <b>AY</b> 	<b>Thumbnail view</b> Switches to between single image view, thumbnail view and picture information view modes in playback mode. This button has no action in record mode. <b>Display</b> Toggles LCD display mode either live preview with full detail overlay, live preview with simple detail or LCD off. <b>Flash</b> Selects flash mode: Auto Flash, Flash Fill-in, Flash Cancel
  	<b>Image review</b> Instantly reviews the last image / movie, in this mode you can zoom into the image but not scroll between images on the Memory Stick, you'll have to switch to playback mode for that (why it wasn't implemented via the jog-dial I'm not sure). <b>Macro Focus</b> Switches between normal; 50 cm (19.7") - Infinity, and macro focus; 4 cm (1.5") - 50 cm (19.7") range. <b>Self-Timer</b> Engages / Disengages the self-timer. Self-timer is cancelled after the next shot is taken.

## Lens barrel controls



## Lens ring

The ring on the front of the lens now performs two different functions depending on the position of the Focus switch. When the Focus switch is set to 'Auto' the ring acts as proportional zoom controller, turn the ring quickly and the camera will zoom quickly, turn it slowly and the camera will zoom slowly. The direction in which you turn the ring for wide / tele can be changed via the setup menu. You can still control zoom using the dual-speed zoom lever on the side of the lens barrel (which now has a more logical position and orientation).

When the Focus switch is set to 'Manual' the lens ring controls the manual focus position, again this is proportional to the speed at which the ring is rotated. During manual focus the display will magnify two times to assist you in finding the focus point (this can be disabled).

## Buttons / Controls

<b>FOCU</b> <b>S</b>	<b>Auto / Manual Focus</b> Switches between automatic or manual focus. When in the Manual position you
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**T / W**

use the focus ring on the front of the lens to focus-by-wire. There's an on-screen ruler indicating focus distance as well as a magnified central 'loupe' to check the exact focus position.

**Zoom / Magnify**

Zooms the camera lens towards telephoto (190 mm) or towards wide angle (38 mm). In play mode pressing the controller towards telephoto magnifies the displayed image (up to x5.0).

**AE  
LOCK**

**Auto-Exposure Lock**

Locks the metered exposure at the current setting, useful for aiming the camera at the subject to use for metering then realigning the scene for the final shot. AE Lock is cancelled after the shot is taken.



**Metering mode**

Selects metering mode:

- Multi-Segment
- Center-Weighted Average
- Spot

**WHT  
BAL**

**White Balance**

Selects white balance settings:

- Auto
- Daylight
- Cloudy
- Fluorescent
- Tungsten
- Manual preset 'one push'

## Record mode display



Here you can see an example of the live preview image as seen on the LCD/EVF just prior to taking a shot, note the composition bracket in the center of the frame. Various settings information is displayed along the top and down the right side of the display, note the new live histogram on the left. Info:

Battery life (in minutes), image size and quality, record folder, remaining frames, Memory Stick status (bar graph), mode, Flash status, Macro focus, Wide AF, ISO 100, +0.7 EV compen.

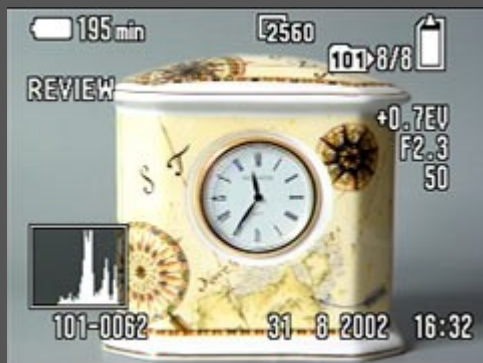


A half-press of the shutter release causes the camera's autofocus and metering systems to lock, a steady green dot and the green colour of the AF brackets indicates a good AF lock and you can now see the exposure shown on the right side of the display.



The DSC-F717 doesn't by default show any review image after taking a shot, you must remember to hold the shutter release down if you want to see the shot after you've taken it.





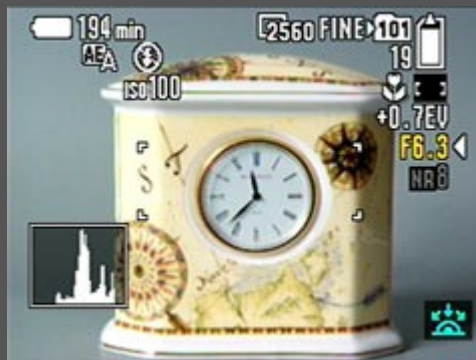
Pressing the 4-way controller to the left in record mode displays the last image taken, as above. This display can be instantly removed by half-pressing the shutter release.



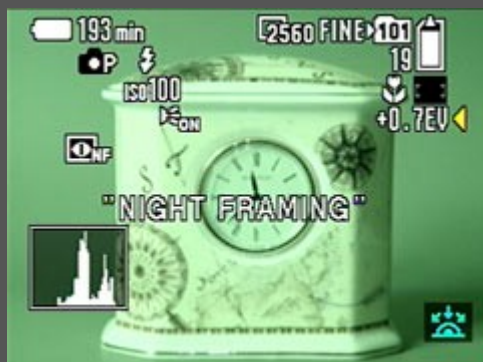
An example of movie capture mode, here the time indicator shows available space for 2 minutes 14 seconds at the current setting.



Example of Shutter Priority mode (before half-pressing the shutter release). Note the blue jog-dial indicator in the bottom right of the screen, a click and roll of the jog-dial will change shutter speed. The 'NR' prefix before the shutter speed indicates automatic noise reduction will be applied to this exposure.



Example of Aperture Priority mode (before half-pressing the shutter release). Note the blue jog-dial indicator in the bottom right of the screen, a click and roll of the jog-dial will change aperture.



Switching to NightFraming mode immediately removes the Infrared filter (you'll hear the click) and the display turns green. The two IR lamps on the front of the lens bathe the subject in IR light. Fully depressing the shutter release takes a shot in normal mode.



NightShot mode operates in the same way as NightFraming, except that the final shot is taken in the same IR sensitive mode used for focusing.



An example of the F717's new full Auto mode. In this mode you can not set exposure compensation,



Here's an example of the live histogram in use, adjust the exposure compensation and you can see

ISO sensitivity, White Balance etc. This is essentially a point and shoot mode.

the image histogram shift. Very useful for judging the correct exposure.

## Record: Auto Focus areas

The DSC-F717 now has five different AF areas and six different AF area settings. Each setting is selected by simply moving the Jog Dial indicator, clicking the Jog Dial down and then rolling it to select the new mode. The first setting is Wide AF where the camera automatically uses up to three of three horizontal AF areas in the center of the frame. The next five settings correspond to one of five AF areas (in a cross pattern) which the camera will use for Auto Focus detection. The image on the right below is simply an example of what you would see in Wide AF mode if the camera chooses to use all three AF points after focusing.



## Record: Manual Focus



## Play display





Switching to play mode immediately displays the last image taken. The F717 uses a "rough thumbnail" image initially (example above) while it loads the full resolution image from the Memory Stick. Note the new Folder indicator (101 in this case).

After a second or so a higher resolution image is shown. You don't have to wait for this image to be able to browse through images and that you can use the jog-dial as well as the 4-way controller to browse.



Pressing DISPLAY switches to a clean image view.

Press DISPLAY again for basic information but no histogram. Press DISPLAY again for full information (including exposure) and the histogram.



Pressing TELE on zoom magnifies the image in several steps up to x5.0. Once magnified you can use the 4-way controller to move around the image. In the examples above you can see magnification of x2.7 and x5.0 (scrolled).



Another new feature of the F717 is that after entering Delete/Protect/DPOF modes you can now scroll between images and selectively delete/protect/DPOF mark them without having to re-select the menu option.

## Play: Thumbnail View



Pressing the THUMB button enters this 3 x 3 thumbnail view where you can scroll around the images and perform various image manipulations.



Select DELETE while in thumbnail view and you can selectively delete images, move around and mark the images to be deleted.



Select PROTECT to mark/unmark images as protected. This sets the image file's read-only flag which protects it from accidental deletion (though not from Memory Stick formatting).

Select PRINT to mark/unmark images to be printed on a DPOF compatible printer. This creates a DPOF compatible text file instructing the printer as to which images are to be printed.

### Play: Image Information



While in thumbnail view mode pressing THUMB button once more enters this three thumbnail information display mode which shows basic exposure information for the selected image.

### Play: Rotate & Resize



Select ROTATE from the Play menu to rotate the current image in 90 degree steps. This does not rotate the JPEG file itself, instead it simply marks the correct orientation in the files header. The DSC-F717 does not have a orientation sensor. It's interesting to note that after rotation the F717 can [no longer display](#) histogram information for the image.



Select RESIZE from the Play menu to produce a resized copy of the current image. Any normal image size can be selected.

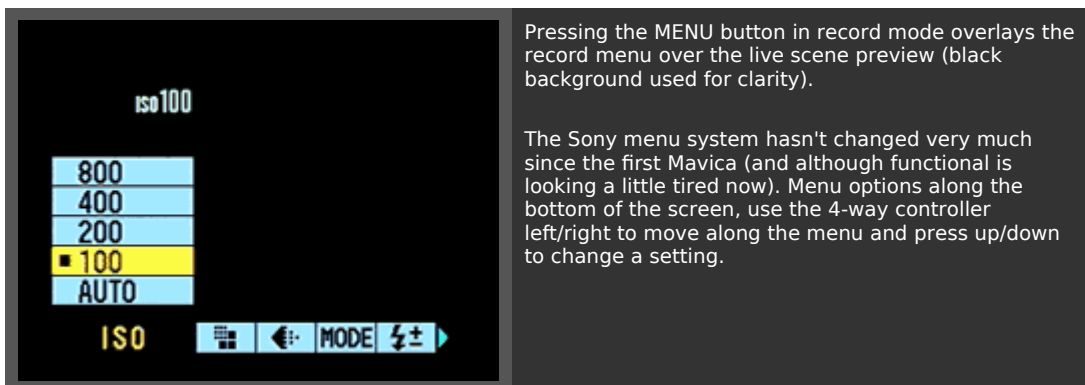
## Play: Movie Clips



Here we can see a HQX movie clip in playback, the bar in the center of the frame indicates the current position in the movie timeline, you can remove all overlaid information by pressing DISPLAY.

Select DIVIDE from the Play menu and you can split a movie into two pieces by choosing a dividing point in the movie (useful for trimming the beginning or end from a clip).

## Record Menu (P/A/S/M exposure modes)



Pressing the MENU button in record mode overlays the record menu over the live scene preview (black background used for clarity).

The Sony menu system hasn't changed very much since the first Mavica (and although functional is looking a little tired now). Menu options along the bottom of the screen, use the 4-way controller left/right to move along the menu and press up/down to change a setting.

## Record Menu Options

Record menu	Options	Notes
ISO	<ul style="list-style-type: none"> <li>• 800</li> <li>• 400</li> <li>• 200</li> <li>• 100</li> <li>• Auto</li> </ul>	Set to 'Auto' the camera will vary sensitivity between ISO 100 and ISO 320 depending on the amount of available light.
Image Size	<ul style="list-style-type: none"> <li>• 2560 x 1920</li> <li>• 2560 x 1712 (3:2)</li> <li>• 2048 x 1536</li> <li>• 1280 x 960</li> <li>• 640 x 480</li> </ul>	
Picture Quality	<ul style="list-style-type: none"> <li>• Fine (JPEG)</li> <li>• Standard (JPEG)</li> </ul>	
Record Mode	<ul style="list-style-type: none"> <li>• TIFF</li> <li>• Voice</li> <li>• E-mail</li> <li>• Exposure Bracketing</li> <li>• Burst 3</li> <li>• Normal</li> </ul>	



Pressing the MENU button in play mode overlays the play menu over the displayed image (black background used for clarity).

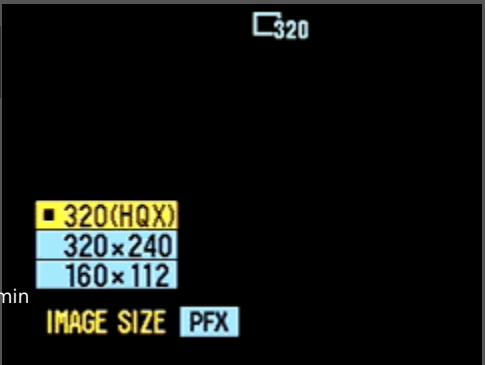
Menu layout is quite similar to record mode, press the 4-way controller left/right to choose an option then depress it fully to select.

### Other record mode menus

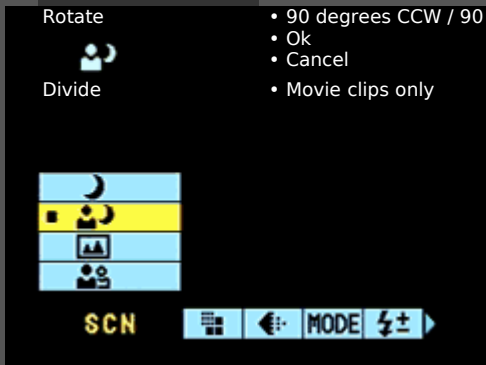
#### Play Menu Options



Auto record menu, a limited number of options for the camera's new point-and-shoot mode. Useful for handing the camera to a complete novice.



Movie clip record menu, allows you to select between 320 x 240 HQX (16 fps), 320 x 240 EX (8 fps) or 160 x 112 (8 fps).

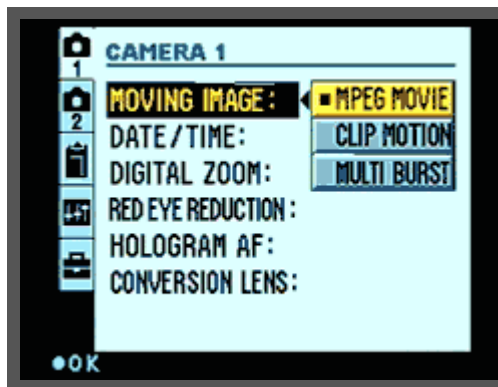


Scene record mode, almost all the options of the P/A/S/M menu apart from ISO sensitivity and the addition of the scene selection menu.

## Play Menu



## Setup menu



The F717's dedicated Setup menu is accessed by turning the mode dial to the SET UP position. Options here are expanded compared to the F707, primarily to address with the new hotshoe, lens ring and folder functionality.

## Setup Menu Options

Record menu	Options	Notes
Moving Image	<ul style="list-style-type: none"> <li>• MPEG Movie</li> <li>• Clip Motion</li> <li>• Multi Burst</li> </ul>	<ul style="list-style-type: none"> <li>- 160 x 120, 320 x 240 or 320 x 240 HQX</li> <li>- Animated GIF @ 160 x 120 or 80 x 60</li> <li>- 7.5, 15 or 30 fps; grid of 16 frames on an image</li> </ul>
Date/Time	<ul style="list-style-type: none"> <li>• Day &amp; Time</li> <li>• Date</li> <li>• Off</li> </ul>	Overlay day / time or date in bottom right corner of every image.
Digital Zoom	<ul style="list-style-type: none"> <li>• On</li> <li>• Off</li> </ul>	
Red Eye Reduction	<ul style="list-style-type: none"> <li>• On</li> <li>• Off</li> </ul>	
Hologram AF	<ul style="list-style-type: none"> <li>• Auto</li> <li>• Off</li> </ul>	Set to 'Off' to disable the Laser AF assist
Conversion Lens	<ul style="list-style-type: none"> <li>• On</li> <li>• Off</li> </ul>	
Expanded Focus	<ul style="list-style-type: none"> <li>• On</li> <li>• Off</li> </ul>	Set to 'On' for magnified view during manual focus
Bracket Step	<ul style="list-style-type: none"> <li>• +/- 1.0 EV</li> <li>• +/- 0.7 EV</li> <li>• +/- 0.3 EV</li> </ul>	
Hot Shoe	<ul style="list-style-type: none"> <li>• On</li> <li>• Off</li> </ul>	
Zoom Ring Setup	<ul style="list-style-type: none"> <li>• W &lt;- -&gt; T</li> <li>• T &lt;- -&gt; W</li> </ul>	Changes the rotation direction of the lens ring during zooming
Format	<ul style="list-style-type: none"> <li>• Ok</li> <li>• Cancel</li> </ul>	
Create Record Folder	<ul style="list-style-type: none"> <li>• Ok [<u>clip</u>]</li> <li>• Cancel</li> </ul>	Create a new image folder, new folders are numbered 100MSDCF, 101..., 102.. etc.
Change Record Folder	<ul style="list-style-type: none"> <li>• Ok [<u>clip</u>]</li> <li>• Cancel</li> </ul>	Select the current record folder (it would have been nice to be able to do this from record mode)
LCD Brightness	<ul style="list-style-type: none"> <li>• Bright</li> <li>• Normal</li> <li>• Dark</li> </ul>	
LCD Backlight	<ul style="list-style-type: none"> <li>• Bright</li> <li>• Normal</li> </ul>	
EVF Backlight	<ul style="list-style-type: none"> <li>• Bright</li> <li>• Normal</li> </ul>	
Beep	<ul style="list-style-type: none"> <li>• Shutter</li> <li>• On</li> <li>• Off</li> </ul>	
File Number	<ul style="list-style-type: none"> <li>• Series</li> <li>• Reset</li> </ul>	Set to 'Reset' to return the image naming counter to zero each time a blank MS is inserted.
USB Connect	<ul style="list-style-type: none"> <li>• PTP</li> <li>• Normal</li> </ul>	
Video Out	<ul style="list-style-type: none"> <li>• NTSC</li> <li>• PAL</li> </ul>	
Language	<ul style="list-style-type: none"> <li>• English</li> <li>• Japanese</li> </ul>	
Clock Set	<ul style="list-style-type: none"> <li>• Ok</li> <li>• Cancel</li> </ul>	



## Timings & File Sizes



Action	Details	Time, seconds (128 MB MS)	Time, seconds (32 MB MS)
Power: Off to Record		2.6	1.7
	Image loading *1	2.6	2.8
Power: Off to Play		1.2	1.2
Power: Record to Off		<0.5	<0.5
Power: Play to Off			
Mode: Record to Play	Image loading *1	0.8	0.6
Mode: Play to Record		<0.5	<0.5
Play: Thumbnail view 3 x 3		0.8	0.8
Action	Details	Time, seconds (average)	
Auto Focus LAG	Wide angle (38 mm equiv.) *2	0.6	
Auto Focus LAG	Telephoto (190 mm equiv.) *2	1.1	
Shutter Release LAG	LCD monitor, pre-focused (shutter rel. half-pressed)	0.1	
Shutter Release LAG	EVF, pre-focused (shutter rel. half-pressed)	0.1	
Shutter Release LAG	LCD monitor, full press, wide angle, AF	0.6	
Off to Shot Taken	128 MB Memory Stick	2.9	
Off to Shot Taken	32 MB Memory Stick	2.1	
Shot to Shot	Wide angle, AF	1.6	

\*1 'Rough image' is displayed while more detailed image is loaded.

\*2 In low light using the Hologram AF (laser) focus times were closer to 2.2 seconds (still very respectable).

**Auto Focus LAG** is (roughly) the amount of time it takes the camera to autofocus (a half-press and hold of the shutter release button), this timing is normally the most variable as its affected by the subject matter, current focus position, still or moving subject etc. This timing is an average.

**Shutter Release LAG** is the amount of time it takes to take the shot from the moment you fully depress the shutter release button, measured both as a time including auto focus and a time assuming you have already pre-focused by holding a half-press of the shutter release.

## Low Light Focus

Using our new low light focusing tests we measure the minimum amount of light under which the camera can still focus. The focus target is our lens distortion test chart (shown here on the right), camera is positioned exactly 2 m (6.6 ft) away. Light levels are gradually dropped until the camera can no longer focus.

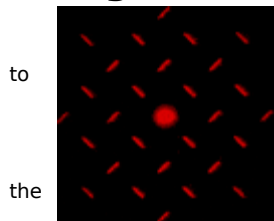
This test target is the optimum type of subject for most "contrast detect" AF systems (as it has a vertical line at its center), if the subject were less easy to focus upon then you would need more light.

- Sony DSC-F717 best low light focus: 0 EV (darkness)

Nothing has changed here so we get the exact same results as the DSC-F707. The F717 was easily capable of focusing in complete darkness thanks to its 'Hologram AF' (laser pattern) focusing mechanism. The laser paints a sharp pattern on to the subject, this pattern is sharp and bright enough for the contrast detection auto focus system to adjust the focus accurately.

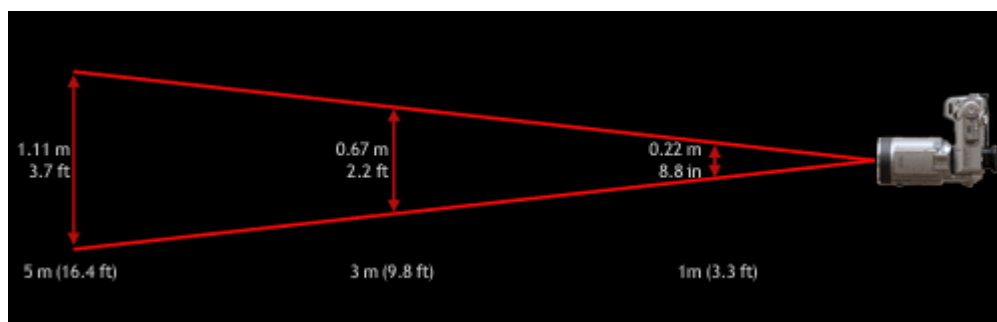
The maximum focus distance (the range of the laser) in darkness, this was approximately 5.5 m (18 ft) - this is focusing on the optimum subject, a flat white surface.

## Hologram AF Caveats



(This from the DSC-F707 review, all applies to the DSC-F717). In use it became clear that the best way to use Hologram AF for small subjects at close distances or medium subjects at further distances was to 'aim' at something larger nearby which would be covered by more of the laser pattern. In our own tests aiming the camera at a subjects face approximately 3 m away with a wall about 1 m behind the Hologram AF system would occasionally miss and focus on the wall behind (because more of the pattern hit the wall). However aiming initially at the subjects torso (which is can be covered by more of pattern) for the half-press then re-framing before a full press worked every time.

Later tests revealed the 'spread' of the pattern to be approximately 12.6°, the diagram below shows the size of the laser pattern at different distances from the lens (1, 3 and 5 m):



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## Burst 3 Mode

The F717's dedicated continuous shooting mode is called 'Burst 3', in this mode one press of the shutter release records three frames over a 0.8 second period (thus 3.75 fps). Depending on the selected image size / quality you will have to wait for these images to be written away to the Memory Stick before you can shoot the next burst.

Image Size / Quality	Frames	Frames per second	Time before next burst
2560 x 1920 FINE	3	3.75 fps	11.4 sec
2560 x 1920 STANDARD	3	3.75 fps	8.2 sec
2048 x 1536 FINE	3	3.75 fps	9.8 sec
1280 x 960 FINE	3	3.75 fps	6.5 sec
640 x 480 FINE	3	3.75 fps	4.2 sec

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## File Flush / Display Timing

- **Time to process** - this is the amount of time after pressing the shutter release button before the camera returns control to you, the image may still be being written away to the Memory Stick but you can begin to take the next shot.
- **Time to flush** - this is the amount of time it takes the camera to process and flush; complete writing the image to the Memory Stick. It is taken from the moment the shutter release is pressed to the moment the red light beside the Memory Stick slot (inside the compartment) goes out. This timing includes the time to process.
- **Time to display** - this is the amount of time it takes the camera to display the image, as with most digital cameras the F717 first displays a rough version of the image (a thumbnail from the file header) and then loads the full resolution image, you can't manipulate the image until it is fully loaded (magnify etc.) however you can interrupt this loading process skip to the next image.

File Type	Time to process, seconds	Time to flush, seconds	Time to display, seconds	Average File size *1	Approx. images on a 128 MB Memory Stick
2560 x 1920 TIFF	49.1 (39.6)	49.1 (39.6)	2.7 (2.7)	*2 16,603 KB	7
2560 x 1920 FINE	1.2 (1.4)	4.9 (3.8)	2.6 (2.6)	2,000 KB	51
2560 x 1920 STANDARD	1.2 (1.4)	3.8 (3.1)	2.3 (2.3)	1,300 KB	96
2048 x 1536 FINE	1.9 (1.7)	4.5 (3.3)	1.8 (1.9)	1,200 KB	82
1280 x 960 FINE	1.8 (1.4)	2.9 (2.3)	1.2 (1.3)	600 KB	202
640 x 480 FINE	1.6 (1.4)	2.2 (1.5)	0.6 (1.0)	160 KB	789

\*1 All file sizes are an average of three files. As is the case with JPEG it's difficult to predict the size of an image because it will vary a fair amount depending on the content of the image (especially the amount of detail captured). For example, take a photograph of a fairly empty wall and you'll get a small JPEG, take a photograph of a bush with a lot of detail and you'll get a larger image. File sizes here are closer to the later, the larger size of file you should expect.

\*2 The DSC-F717 rather wastefully creates an additional JPEG along with the TIFF file, thus the total size (2,200 KB + 14,403 KB) is approximately 16,603 KB.

## Battery life

- Take 4 shots without flash
- Wait 2 minutes (50% of the time powering the camera off)
- Take 1 shot with flash
- Wait 1 minute
- Repeat

All batteries had been fully discharged and recharged before the test and all cameras were reset to their factory default settings. Here are the results:

Camera	Battery	Power	Battery life	Number of shots
Prosumer / SLR-Like				
Minolta DiIMAGE 7	4 x AA NiMH 1600 mAh (GP)	7.7 Wh	1 hr 14 mins	125
Minolta DiIMAGE 5	4 x AA NiMH 1600 mAh (GP)	7.7 Wh	1 hr 56 mins	195
Nikon Coolpix 5700	EN-EL1	4.8 Wh	2 hr 08 mins	215
Canon PowerShot S40	NB-2L	3.9 Wh	2 hr 13 mins	225
Minolta DiIMAGE S304	4 x AA NiMH 1600 mAh (GP)	7.7 Wh	2 hr 18 mins	235
Canon PowerShot S45	NB-2L	3.9 Wh	2 hr 28 mins	240
Nikon Coolpix 4500	EN-EL1	4.8 Wh	2 hr 27 mins	250
Fujifilm FinePix 6900Z	NP-80	4.1 Wh	2 hr 29 mins	250
Nikon Coolpix 990	4 x AA NiMH 1600 mAh (GP)	7.7 Wh	2 hr 30 mins	255
Nikon Coolpix 995	EN-EL1	4.8 Wh	2 hr 30 mins	255
Nikon Coolpix 5000	EN-EL1	4.8 Wh	2 hr 32 mins	260
Minolta DiIMAGE 7Hi	4 x AA NiMH 1600 mAh (GP)	7.7 Wh	2 hr 33 mins	260
Canon PowerShot S50	NB-2L	3.9 Wh	2 hr 39 mins	270
Minolta DiIMAGE S404	4 x AA NiMH 1600 mAh (GP)	7.7 Wh	2 hr 39 mins	270
Minolta DiIMAGE 7i	4 x AA NiMH 1600 mAh (GP)	7.7 Wh	2 hr 46 mins	270
Olympus E-20	4 x AA NiMH 1600 mAh (GP)	7.7 Wh	2 hr 48 mins	285
Canon PowerShot G1	BP-511	8.1 Wh	3 hr 00 mins	300
HP Photosmart 850	4 x AA NiMH 1600 mAh (GP)	7.7 Wh	3 hr 12 mins	325
Sony DSC-S75	NP-FM50	8.6 Wh	3 hr 15 mins	330
Fujifilm FinePix S602Z	4 x AA NiMH 1600 mAh (GP)	7.7 Wh	3 hr 29 mins	350
Canon PowerShot G2	BP-511	8.1 Wh	3 hr 32 mins	355
Casio QV-4000	4 x AA NiMH 1600 mAh (GP)	7.7 Wh	3 hr 38 mins	365
Olympus C-5050 Zoom	4 x AA NiMH 1600 mAh (GP)	7.7 Wh	3 hr 48 mins	380
Sony DSC-S85	NP-FM50	8.6 Wh	3 hr 50 mins	400
Sony DSC-F717	NP-FM50	8.6 Wh	4 hr 02 mins	405
Sony DSC-F707	NP-FM50	8.6 Wh	4 hr 20 mins	440
Canon PowerShot G3	BP-511	8.1 Wh	4 hr 32 mins	455
Pentax Optio 550	D-LI7	6.6 Wh	4 hr 36 mins	465

As we expected the F717 performs pretty much identically to the F707, although Sony tell us it should last even longer. I think that four hours in our test is very very good indeed.


## JPEG/TIFF Image Size & Quality Samples



- 2560 x 1920 TIFF
- 2560 x 1920 FINE JPEG
- 2560 x 1920 STANDARD JPEG
- 2048 x 1536 FINE JPEG
- 1280 x 960 FINE JPEG
- 640 x 480 FINE JPEG


**2560 x 1920**

TIFF



14,403 KB (Not available for download)

JPEG  
FINE



2,196 KB

JPEG  
STD



1,211 KB

2048 x 1536

JPEG  
FINE



1,457 KB

1280 x 960

JPEG  
FINE



584 KB

640 x 480



JPEG  
FINE



144 KB

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## Image Processing Adjustments

### Sharpening

The only parameter you do have control of is sharpening. The DSC-F717 provides five levels of sharpening from +2 (hard) to -2 (soft). The slight halo sharpening artifacts visible at the normal sharpening level (0) can be reduced by using a sharpness level of -1 (although obviously at the expense of detail sharpness).



Sharpness: +2 (Hard)



Sharpness: +1



Sharpness: 0 (Normal)



Sharpness: -1



Sharpness: -2 (Soft)

**ISO Sensitivity / Noise levels**

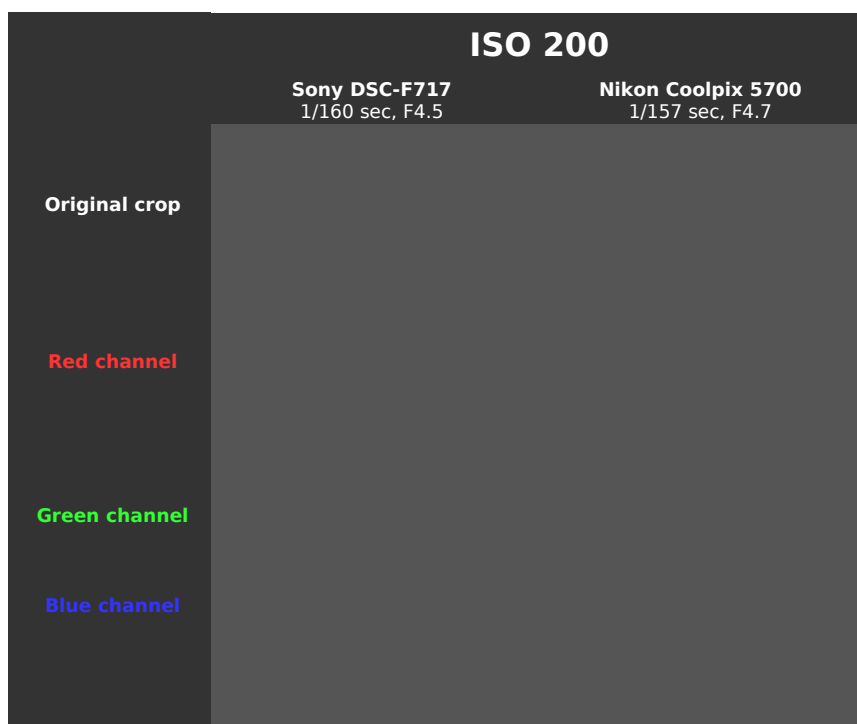
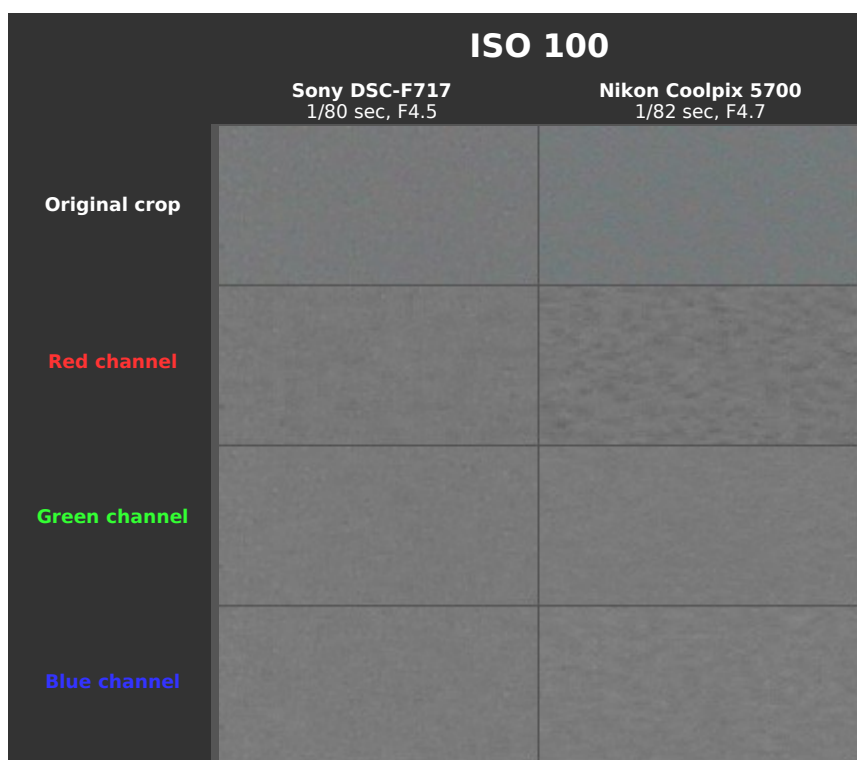


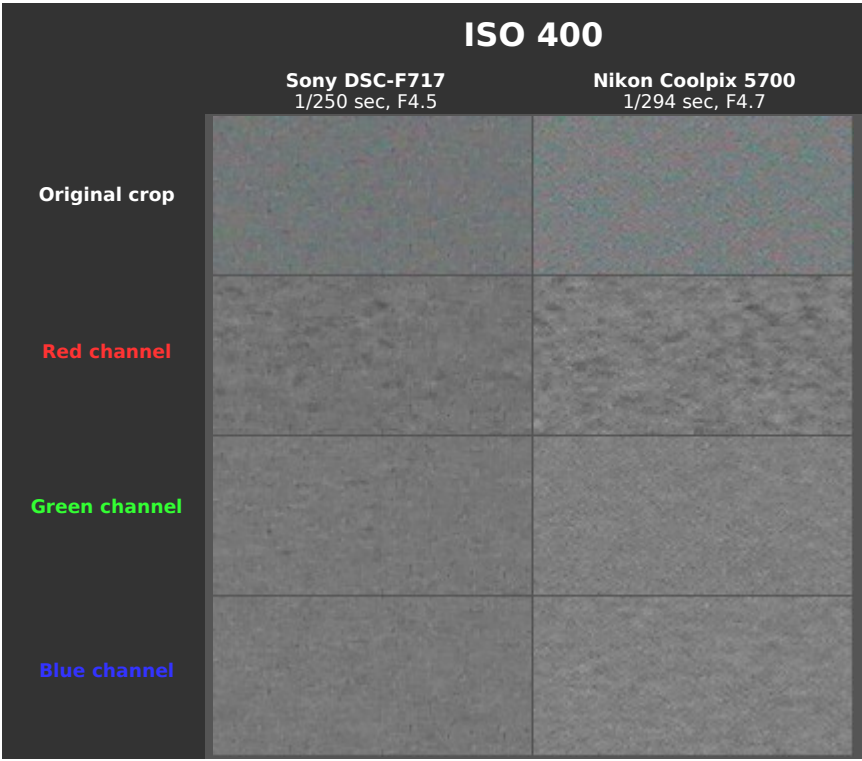
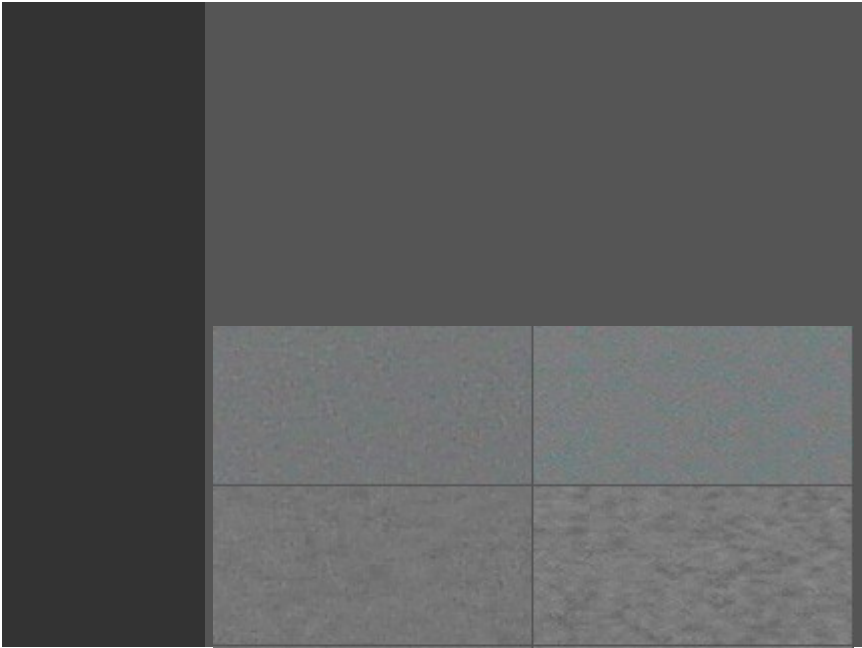
Our noise comparison test involves shooting a colour patch chart (a GretagMacBeth ColorChecker) at the full range of ISO sensitivities and then measuring luminance and RGB noise at a 'mid' grey patch.

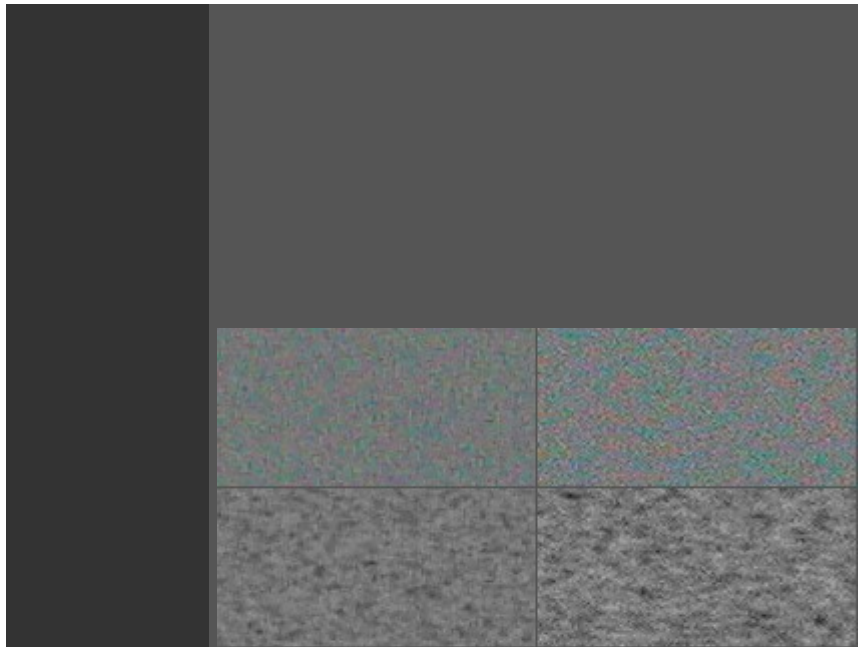
Note that our new test now provides a graph of luminance noise for each sensitivity as well as individual RGB channel noise.

## Sony DSC-F717 vs. Nikon Coolpix 5700

Image sharpening set to 'Normal' on both cameras, white balance preset other settings as default, Aperture priority with a -0.3 EV exposure compensation. Measurements taken at approximately 21°C (~70°F). Lighting was daylight.

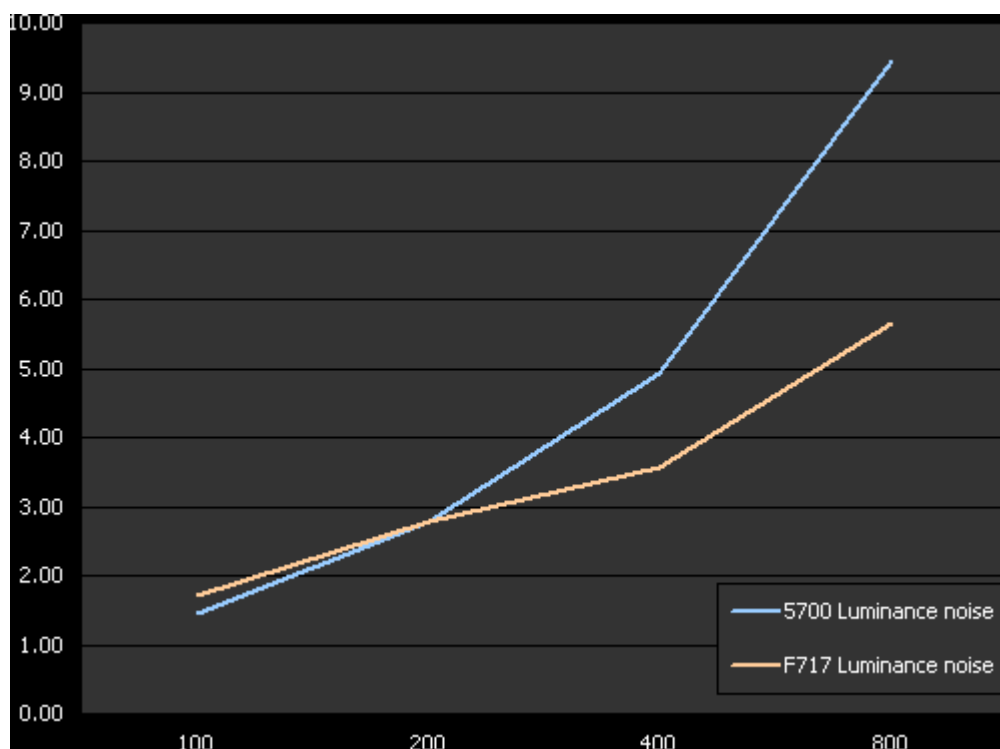






As far as we know both cameras use the same 2/3" CCD sensor, although the DSC-F717 uses a primary colour filter array (RGB filters) and the Coolpix 5700 uses a complementary colour filter array (CYGM filters). It appears as though the F717's noise reduction systems keep visible noise under control, especially at higher sensitivities. A quick look at the graph below hints that the benefits of such noise reduction begin to have a noticeable effect from ISO 400 upwards. Certainly the DSC-F717's ISO 400 and 800 crops are cleaner than that from the Coolpix 5700.

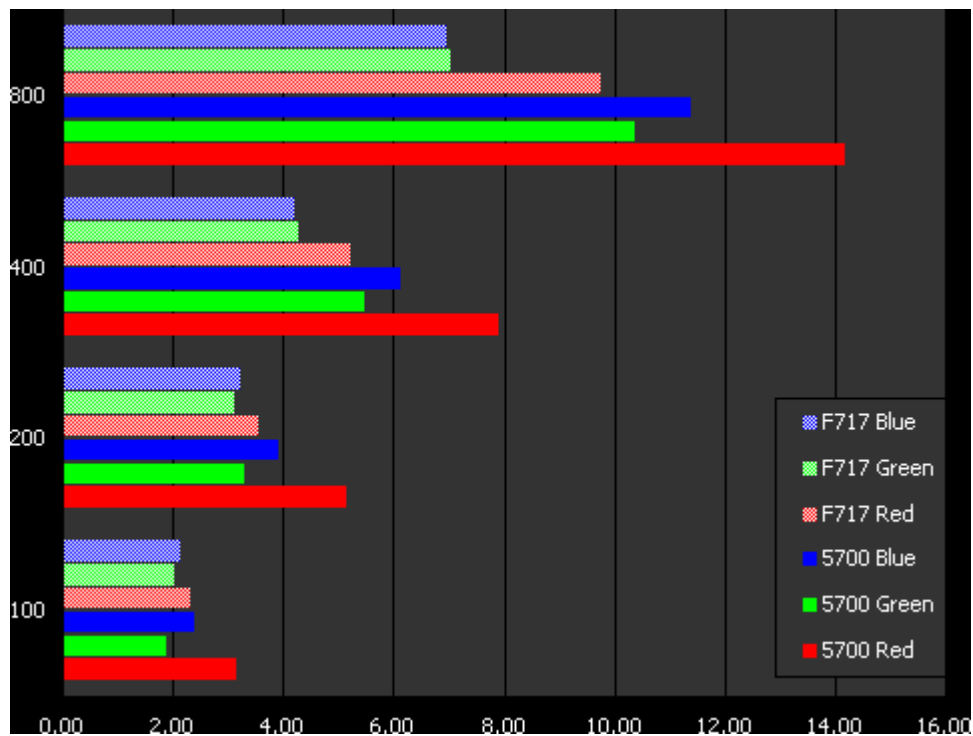
## Luminance noise graph



Note that ISO sensitivity is on the **horizontal** axis of this graph.

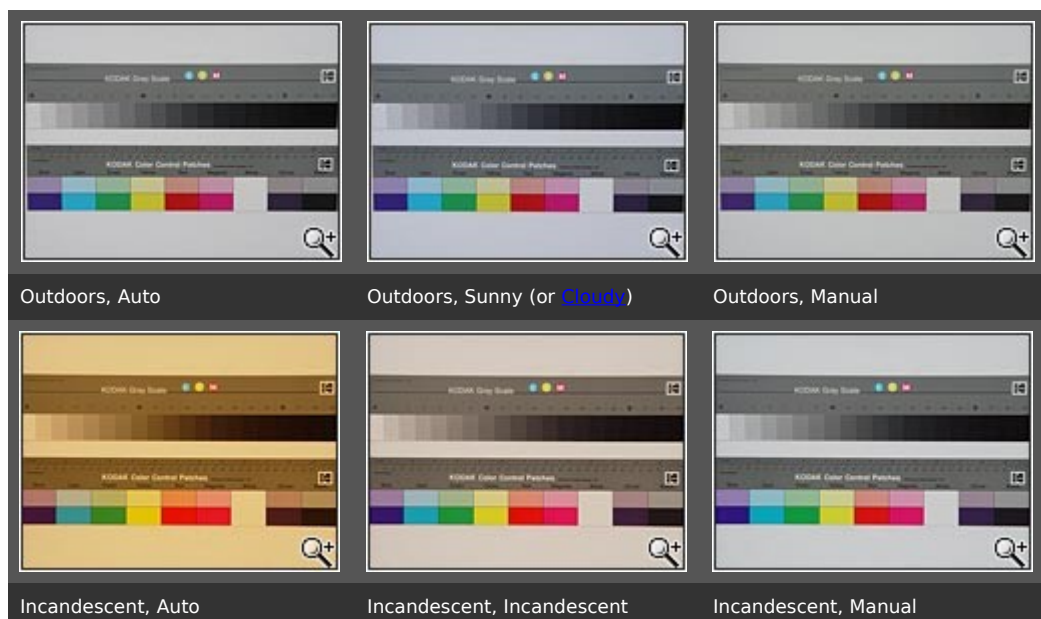


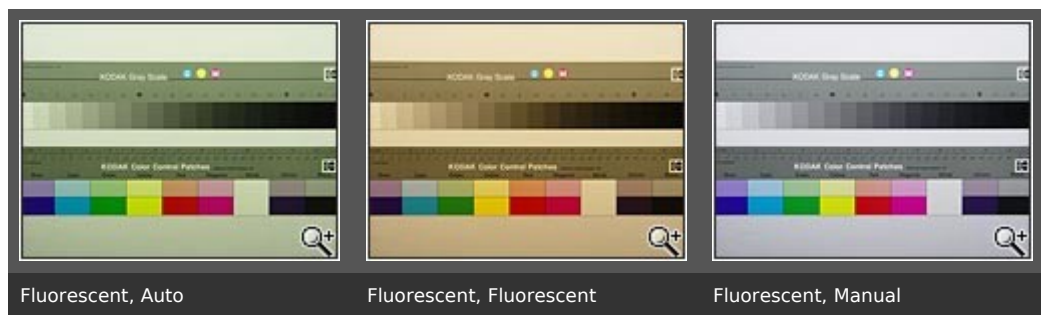
## RGB noise graph



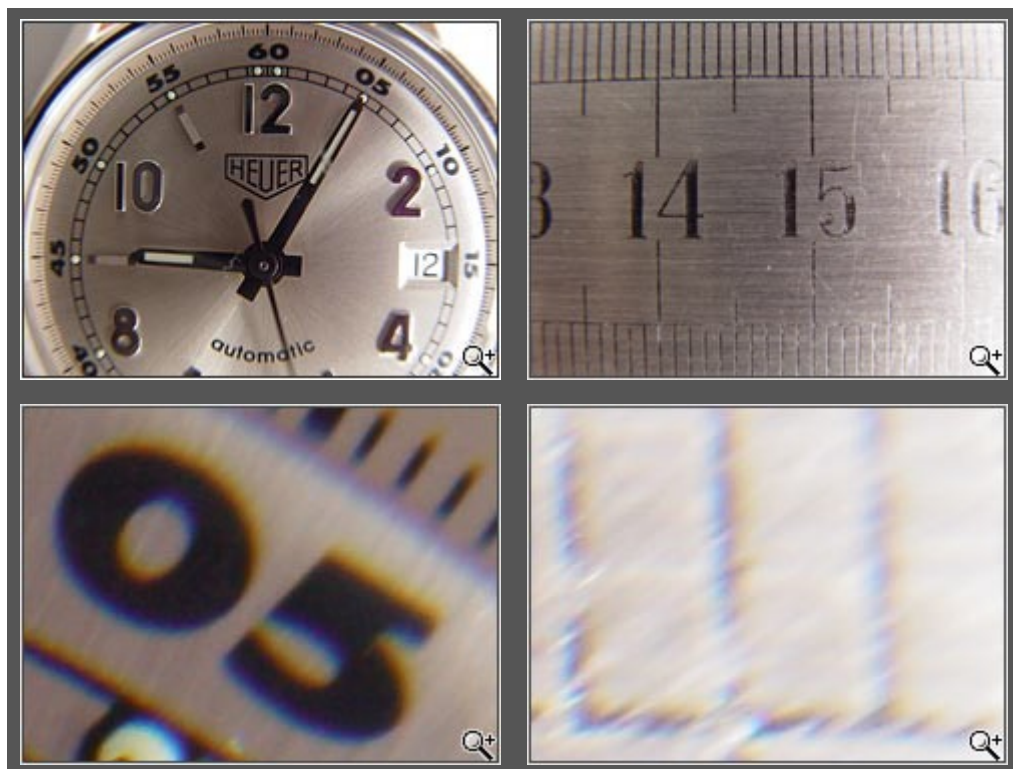
Note that ISO sensitivity is on the **vertical** axis of this graph. Interesting to see that although the DSC-F717 does an admirable job of keeping green and blue channel noise under control that red channel noise increases relatively to them. This could lead to otherwise clean shadow areas with some visible red 'mottle' effect.

## White Balance





## Macro Focus




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## Flash Performance

The DSC-F717's flash unit is unchanged from the F707 with a range of 0.5 - 5 m (1.6 - 16.4 ft) which is pretty powerful by digital camera standards. The F717 performs flash metering TTL (through the lens) by firing a pre-flash just milliseconds before the main flash. Note that in manual exposure mode with either the internal or external flash enabled the display will automatically return to a 'normal' brightness.

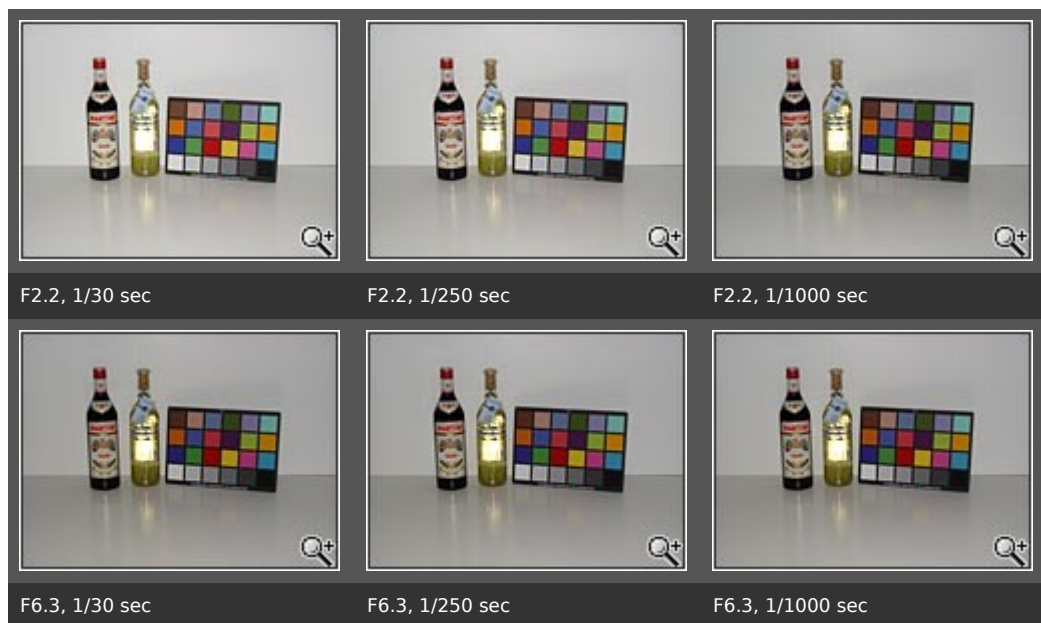


## BFS / LEVBFS

BFS and LEVBFS are acronyms given to issues with the DSC-F707's flash system by our very own Sony Talk Forum (STF). BFS (Blue Flash Syndrome) was an almost random occurrence of blue cast (incorrect white balance) in automatic flash exposures, this was solved by Sony and existing F707's were fixed. LEVBFS (Level Blue Flash Syndrome) appeared after the original fix and affected manual flash exposures, higher shutter speeds produced bluer and bluer exposures. The problem appears to be related to the way the camera measures white balance (before the flash exposure).

## Manual flash exposures in darkness

Good news here, no evidence of any blue cast when taking manual flash exposures in darkness.



## Manual flash exposures with incandescent light

Colour cast exhibited below is what we would expect of an automatic white balance system in a mixed light situation. The camera selects its auto white balance based on the dominant light source in the image. At F2.2, 1/30 or 1/250 sec and F6.3, 1/30 sec this is an incandescent white balance (hence blue cast). Otherwise the camera selects a flash white balance, which produces the correct white balance.





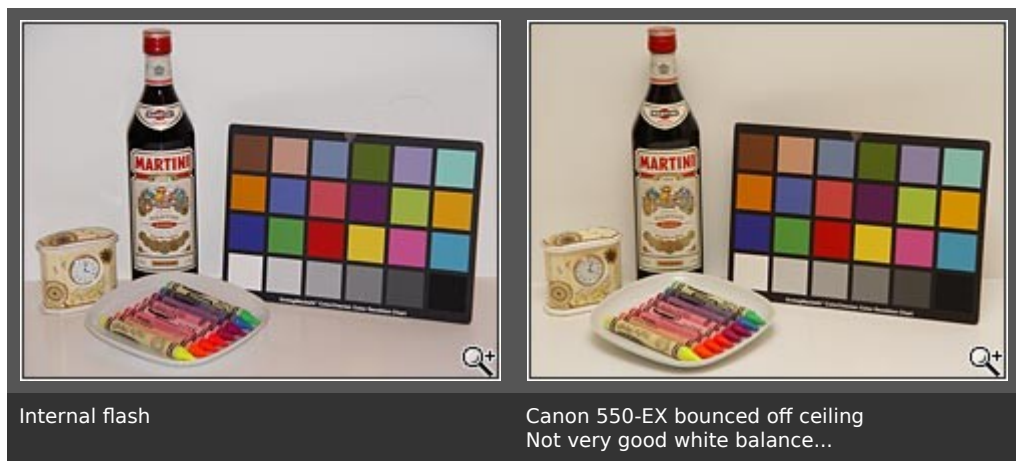
## Compared to the Nikon Coolpix 5700

Although not as visible the F3.7, 1/250 sec shot below definitely exhibits the same 'problem', the camera not knowing which way to go with the white balance. The Coolpix 5700 does allow you to select a 'Speedlight' (Flash) white balance which does produce more consistent results once the shutter speed is fast enough to eliminate much of the ambient incandescent light.



## Flash hot-shoe

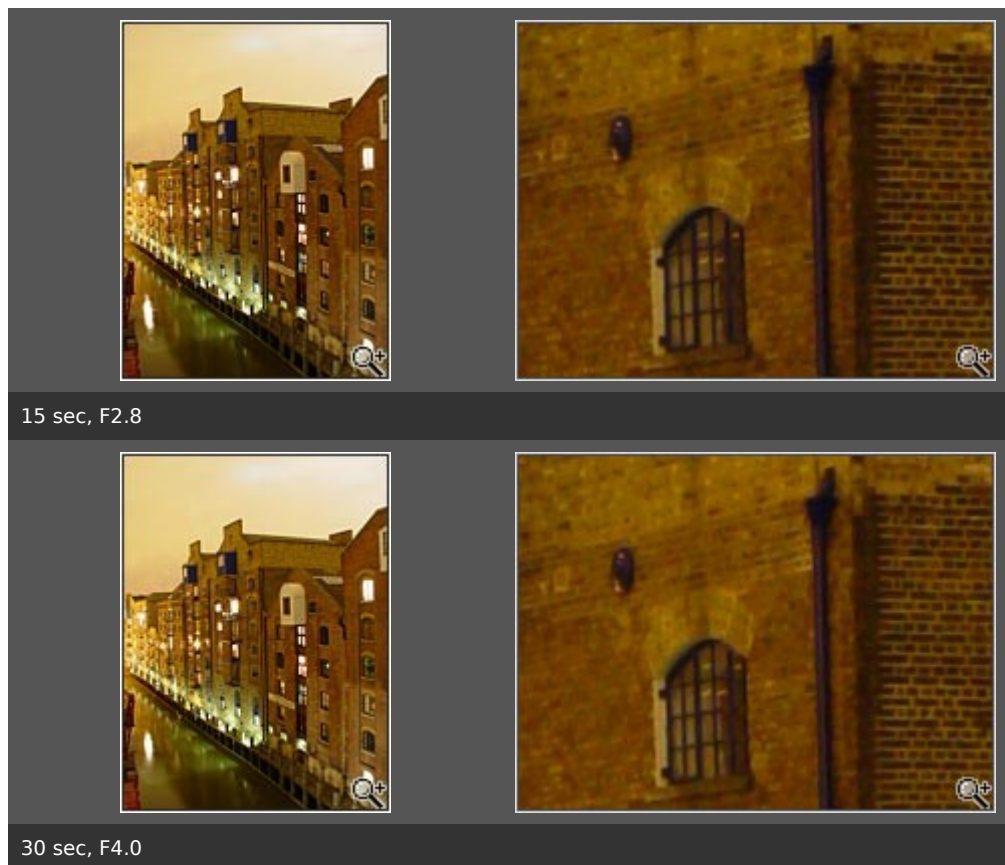
The DSC-F717 now features a flash hot-shoe (with contacts) compared to the 'cold shoe' of the F707 (no contacts). This means you can mount Sony's dedicated digital flash (HVL-F1000) directly onto the camera or even trigger third party flash systems. A word of warning about using this contact to trigger studio strobe systems, always check the trigger voltage to avoid damaging your camera. When the 'Hot-shoe' option is enabled through the SETUP menu the camera's manual exposure mode no longer dims the live view display.



## Night exposures / Noise reduction

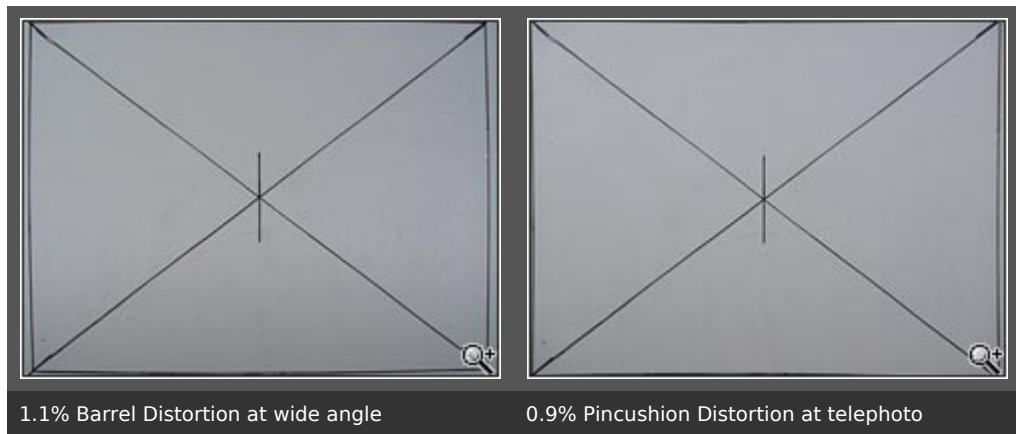
The DSC-F717 now extends its automatic noise reduction for all shutter speeds slower (longer) than 1/25 sec. For long shutter speeds (such as 1 second or longer) the camera appears to implement a dark frame subtraction noise reduction, this works by taking an equally long 'dark frame' after the main exposure and using that to subtract 'hot pixel' noise from the image.

The DSC-F717 allows for timed exposures of up to 30 seconds with impressive results. There is no visible noise nor 'black pits' where the camera has removed hot pixels. Overall very impressive. I did do a couple of Night Shot tests of this scene but it is far too dark (even at ISO 800) to capture anything useful. Night Shot is really only useful where the Night Shot lamps can illuminate the subject.



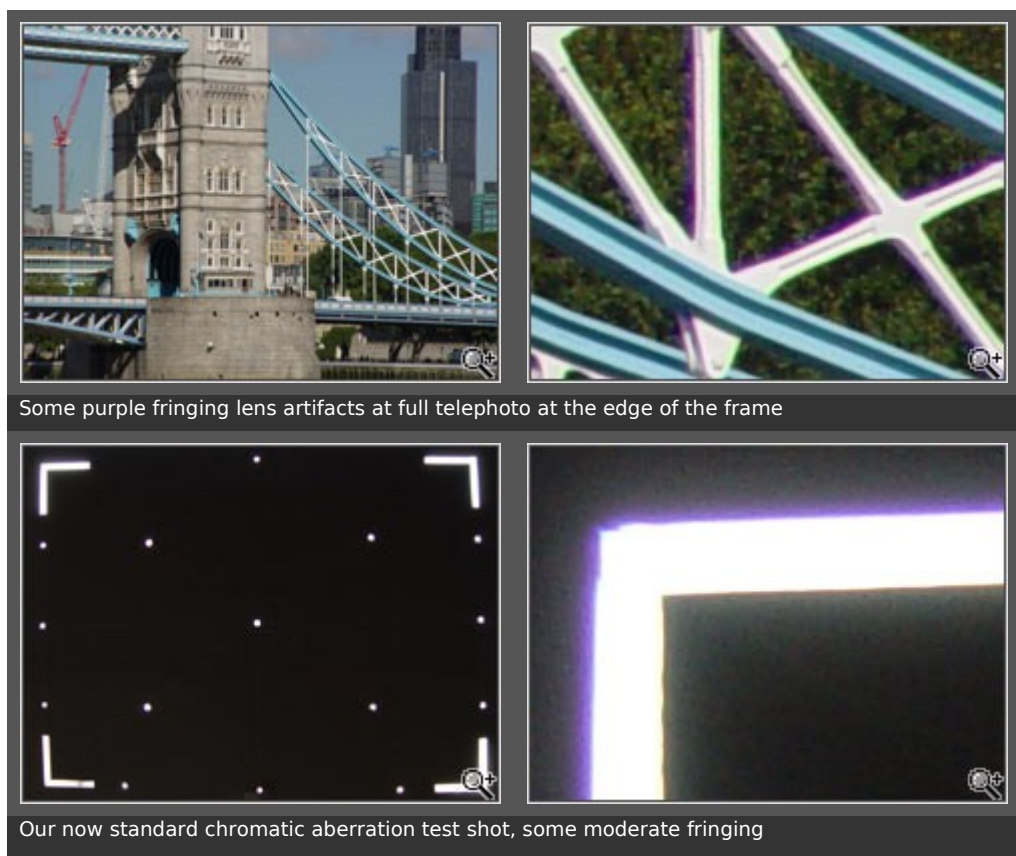
## Barrel and Pincushion Distortion





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## Purple Fringing (Chromatic Aberrations)



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## Overall Image Quality / Specific Issues

The DSC-F717 repeatedly produced sharp, detailed images with great dynamic range and good automatic white balance (under natural light). Colours are definitely less saturated and more accurate than we saw on the DSC-F707 and for this Sony should get an extra Kudos. Colours are now accurate and still well saturated providing images which look good straight out of the camera with very little post-processing required. The F717's

## Compared to the Sony DSC-F707

### Outdoor scene comparison





The first quite interesting difference is that the F717 appears to be 0.7 EV (three quarters of a stop) more sensitive than the F707. That is that it exposed the shot at 1/1250 sec where as the F707 used a shutter speed of 1/800 sec, resulting image brightness was the same. It's also fairly clear that the F717's colour balance is 'different' compared to the F707, blues seem to have shifted more towards a pure blue (less green influence) and greens are toned down slightly. Otherwise noise levels and resolution are virtually identical.

Unlike most digital cameras we review I had

## Compared to the Minolta DiMAGE 7Hi and Nikon Coolpix 5700

### On paper (specifications)

			
	Sony DSC-F717	Minolta DiMAGE 7Hi	Nikon Coolpix 5700
Street price	US: \$999	US: \$1299	US: \$1199
Image sensor	2/3" 5.2 megapixel CCD	2/3" 5.2 megapixel CCD	2/3" 5.2 megapixel CCD
Effective pixels	5.0 million	5.0 million	5.0 million
Colour Filter Array	RGB	RGB	CYGM
Lens zoom	5x, 38 - 190 mm equiv.	7x, 28 - 200 mm equiv.	8x, 35 - 280 mm equiv.
Lens aperture	F2.0 - F2.4	F2.8 - F3.5	F2.8 - F4.2
Zoom control	Zoom by wire (ring / lever)	Mechanically linked ring	Zoom by wire (lever)
Auto Focus	Contrast TTL	Contrast TTL	Contrast TTL
AF areas	5 area	3 area / 285 area	5 area
AF assist	Yes, laser pattern	No	No
Manual focus	Focus by wire (ring)	Focus by wire (ring)	Focus by wire (buttons)
Normal focus	50 cm	38 cm	50 cm
Macro focus	2 cm (Wide - distorts)	13 cm	3 cm (Mid-zoom)
Sensitivity	ISO 100, 200, 400, 800	ISO 100, 200, 400, 800	ISO 100, 200, 400, 800
Metering	Multi, CW Avg., Spot	Multi, CW Avg., Spot	Matrix, CW Avg., Spot
Shutter speeds	30 sec - 1/2000 sec *1	Bulb, 15 sec - 1/2000 sec	Bulb, 8 sec - 1/4000 sec
Apertures	F2.0 / F2.4 - F8.0	F2.8 / F3.5 - F8.0	F2.8 / F4.2 - F8.0
Exposure modes	Auto, P, A, S, M	P, A, S, M	Auto, P, A, S, M
Exposure bracket	Yes	Yes	Yes
Histogram	Live, Review, Playback	Live, Playback	Playback
Colour space	sRGB (assumed)	sRGB, Adobe RGB *2	sRGB (assumed)
Parameters	Sharpness	Sharpness, Color, Tone	Sharpness, Color, Tone
Noise Reduction	Automatic, 1/25 sec or slower	Automatic, long exposures	Manually selectable
Flash	Electronic pop-up	Manual pop-up	Electronic pop-up
External flash	Hot-shoe, Sony acc	Hot-shoe, PC Sync	Hot-shoe
White balance	Auto, 4 presets, manual	Auto, 5 presets, 2 manual	Auto, 5 presets *3, manual
Continuous *4	2 fps, max 3 images	2/3 fps, max 9 images	3.8 fps, max 3 images
Image formats	TIFF, JPEG	RAW, TIFF, JPEG	RAW, TIFF, JPEG
LCD Monitor	1.8" twisting body	1.8" fixed	1.5" flip-out and twist
LCD Pixels	123,000	118,000	110,000
Viewfinder	Electronic Viewfinder	Electronic Viewfinder, Tilts	Electronic Viewfinder
Timelapse	No	Yes	No
User memories	One	Five	Three
Storage	Memory Stick	Compact Flash Type I/II	Compact Flash Type I/II
Power	Sony Lithium-Ion battery	4 x AA batteries (NiMH)	Nikon Lithium-Ion battery
Batt / Charger	Included	Included	Included
Weight (incl.)	659 g (23.2 oz)	650 g (22.9 oz)	512 g (18.1 oz)
Dimensions	162 x 124 x 68 mm (6.4 x 4.9 x 2.7 in)	117 x 91 x 113 mm (4.6 x 3.6 x 4.5 in)	108 x 76 x 102 mm (4.3 x 3 x 4 in)

\*1 Only up to 1/1000 sec in shutter priority and manual exposure modes

\*2 Can be selected in-camera, JPEG images can be tagged with profile

\*3 All presets can be fine tuned

\*4 At JPEG Large / Fine

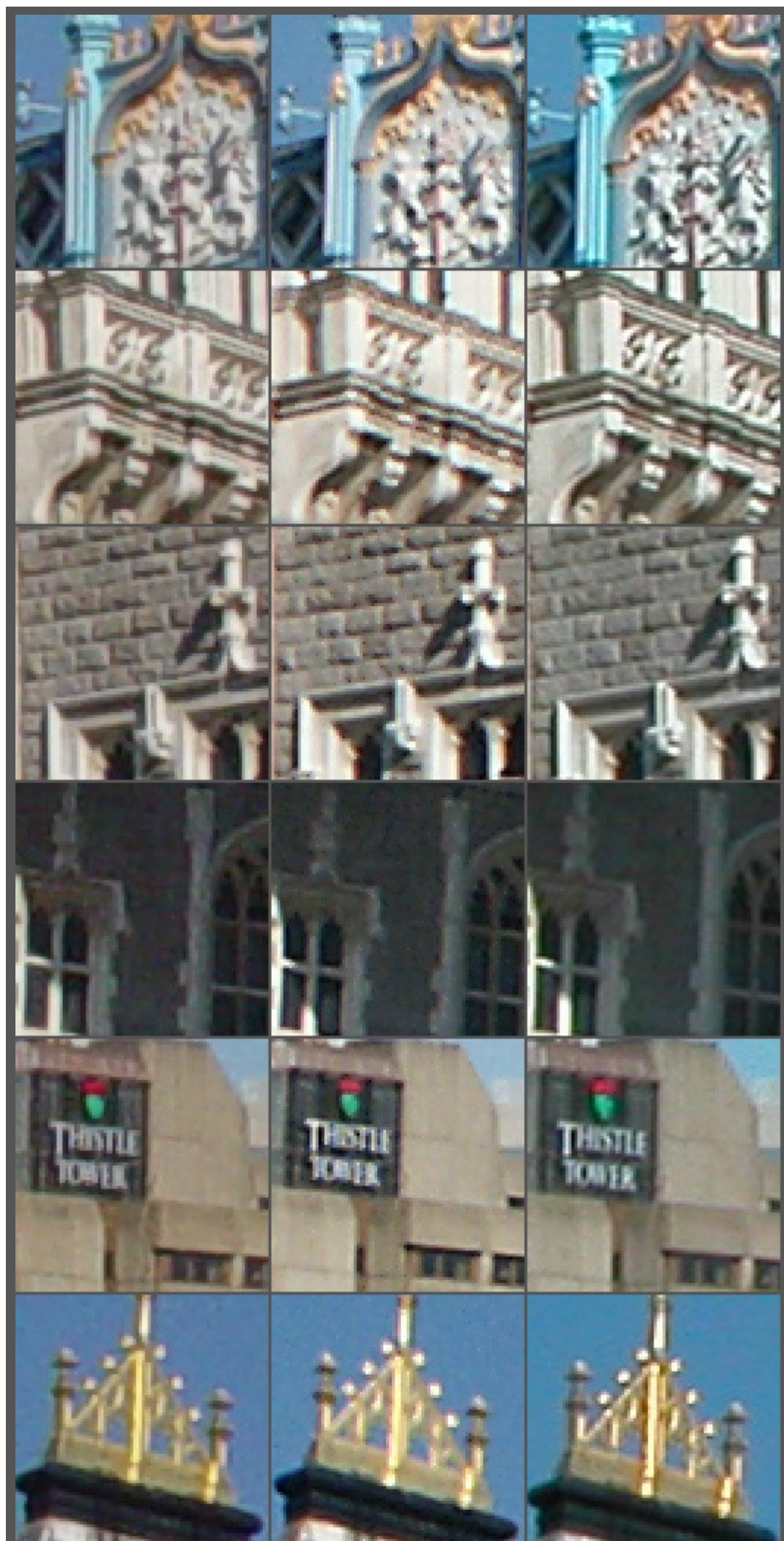


## Outdoor scene comparison

- **Sony DSC-F717**  
Sharpness: 0, WB: Sunny, Aperture Priority (F5.6)
- **Minolta DiIMAGE 7Hi**  
Saturation: 0, Contrast: 0, Color mode: Natural (sRGB), Sharpness: Normal, WB: Sunny, Aperture Priority (F5.6)
- **Nikon Coolpix 5700**  
Tone: Normal, Sharpening: Normal, Saturation: 0, WB: Sunny, Aperture Priority (F5.6 or nearest)







General observations compared to the DSC-F717:

- The DSC-F717 produces a 'flatter' image (less contrast) although with better dynamic range
- The DSC-F717 exhibits the best resolution, but only marginally
- The DSC-F717's shadows have some visible chrominance noise (blotches), this could be related to the general high colour saturation
- The DiMAGE 7Hi exhibits some strange dotted Bayer interpolation artifacts in different parts of the image
- Colour balance between each camera is notably different, especially the Coolpix 5700
- The Coolpix 5700 exhibited the lowest 'sky noise' followed by the DSC-F717 and then the DiMAGE 7Hi
- All cameras exhibited a certain amount of purple fringing on the bright area at the tip of the tower (second to last crop)
- The DSC-F717 manages to avoid diagonal colour stepping (last crop)